TSG RAN Meeting #22 Maui, USA, 9 - 12 December 2003

RP-030677

Title CRs (Rel-5 only) to TS 25.423 on RNSAP reviews

Source TSG RAN WG3

Agenda Item 7.4.5

| RAN3 Tdoc | Spec | curr. Vers. | new Vers. | REL | CR | Rev | Cat | Title | Work item |
|-----------|--------|----------------|-----------|-------|-----|-----|-----|------------------|-----------|
| R3-031783 | 25.423 | 5.7.0 | 5.8.0 | REL-5 | 881 | 1 | F | RNSAP TDD Review | TEI5 |
| R3-031875 | 25.423 | 5.7.0 | 5.8.0 | REL-5 | 894 | 2 | F | RNSAP review | TEI5 |

3GPP TSG-RAN3 Meeting #39 San Diego, California, USA, 17 – 21 November 2003

| | | CHANG | E REQ | UE | ST | | | | CR-Form-v7 |
|--------------------|--|---|----------------|------|--------|---|--|--|------------|
| × | 25.423 | CR <mark>881</mark> | ∺rev | 1 | ¥ | Current vers | sion: | 5.7.0 | ¥ |
| For <u>HELP</u> on | using this fo | orm, see bottom of th | his page or | look | at the | e pop-up text | t over t | he Ж syr | nbols. |
| Proposed chang | e affects: | UICC apps郑 | ME | Rac | dio A | ccess Netwo | rk X | Core Ne | etwork |
| Title: | ₩ RNSAP | TDD Review | | | | | | | |
| Source: | ₩ RAN3 | | | | | | | | |
| Work item code: | 光 TEI5 | | | | | Date: ₩ | 17/1 | 1/2003 | |
| Category: | F (co A (co B (ac C (ful D (ec Detailed ex | f the following category rrection) presponds to a correct dition of feature), nctional modification of litorial modification) colanations of the about 3GPP TR 21.900. | tion in an ear | | elease | Release: # Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 | the foll (GSM (Relea (Relea (Relea | owing rele Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) | eases: |

Reason for change: # At RAN#21 it was agreed that Rel-5 version of the specifications shall be frozen from RAN#22 and onwards. RAN3 has therefore been tasked to review the lu-x protocols to ensure that Rel-5 is correct and consistent before RAN#22. This document is intended to be used as a basis for the RNSAP Rel-5 TDD review at RAN3#39.

Summary of change: # The corrections fall into 3 areas:

- 1. "Editorial" or almost editorial. (Almost all sections listed below).
- 2. IEs listed in the wrong order in the tabular (sections 9.1.4.2, 9.1.7.2, 9.1.11.2,)
- 3. Errors in applied CRs that leads to an inconsistency between the tabular and ASN.1 (sections 9.1.4.2, 9.1.7.2, 9.2.1.30, 9.2.1.72).

The CR that introduced cell relation parameters applied the changes inconsistently in the HCR and LCR sections.

The CR that introduced IP transport added an extraneous structure to the RL Reconfiguration Ready message for TDD in the ASN.1.

The CR that introduced HS-SICH measurements should have also included the ID in the Measurement Failure message to allow for consistent reporting of successful outcomes.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has [isolated impact] with the previous version of the specification (same release) because it might affect implementations that have that differ from the clarifications contained in this document.

This CR has an impact under [function] point of view.

The impact may or may not be considered isolated because the change affects different functions.

Consequences if not approved:

If this CR is not approved it is possible that issues that are clarified in this CR will remain unclear.

| Clauses affected: | # 8.3.1.2, 8.3.2.2, 8.3.4.2, 8.3.7.2, 8.3.8.2, 8.3.17.1, 8.5.2.2, 9.1.4.2, 9.1.7.2, 9.1.11.2, 9.1.24.2, 9.2.1.30, 9.2.1.72, 9.2.3.3ab, 9.2.3.4, 9.2.3.5, 9.3.3 | | | | |
|-----------------------|--|--|--|--|--|
| Other specs affected: | Y N X Other core specifications Test specifications O&M Specifications | | | | |
| Other comments: | x | | | | |

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

3GPP TS 25.423 V5.7.0 (2003-09)

Technical Specification



3rd Generation Partnership Project; Technical Specification Group Radio Access Network; UTRAN lur interface RNSAP signalling (Release 5)

The present document has been developed within the 3rd Generation Partnership Project (3GPPTM) and may be further elaborated for the purposes of 3GPP

The present document has not been subject to any approval process by the 3GPPOrganisational Partners and shall not be implemented.

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Keywords UMTS, radio

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Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).

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1 Scope

The present document specifies the radio network layer signalling procedures of the control plane between RNCs in UTRAN, between RNC in UTRAN and BSS in GERAN Iu mode and between BSSs in GERAN Iu mode.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same
- Release as the present document. [1] 3GPP TS 23.003: "Numbering, addressing and identification". [2] 3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling". [3] 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for DCH Data Streams". 3GPP TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams". [4] 3GPP TS 25.435: "UTRAN Iub interface User Plane Protocols for Common Transport Channel [5] Data Streams". [6] 3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception". [7] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception". [8] 3GPP TS 25.211: "Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD)". [9] 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)". 3GPP TS 25.214: "Physical Layer Procedures (FDD)". [10] 3GPP TS 25.215: "Physical Layer – Measurements (FDD)". [11] [12] 3GPP TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD)". [13] 3GPP TS 25.223: "Spreading and Modulation (TDD)".
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| [35] | 3GPP TS 25.424: " UTRAN Iur Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ". |
| [36] | 3GPP TS 44.118: "Mobile radio interface layer 3 specification; Radio Resource Control (RRC) Protocol Iu mode". |
| [37] | 3GPP TR 43.930: "Iur-g interface; Stage 2". |
| [38] | 3GPP TS 48.008: "Mobile-services Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification". |
| [39] | 3GPP TS 43.051: "GSM/EGDE Radio Access Network; Overall description - Stage 2". |
| [40] | 3GPP TS 25.401: "UTRAN Overall Description". |
| [41] | 3GPP TS 25.321: "MAC protocol specification". |
| [42] | 3GPP TS 25.306: "UE Radio Access capabilities". |

3 Definitions, Symbols and Abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Elementary Procedure: RNSAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between two RNCs. An EP consists of an initiating message and possibly a response message. Two kinds of EPs are used:

- Class 1: Elementary Procedures with response (success or failure);

- Class 2: Elementary Procedures without response.

For Class 1 EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

Prepared Reconfiguration: A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist any more after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed.

UE Context: The UE Context contains the necessary information for the DRNC/DBSS to communicate with a specific UE. The UE Context is created by the Radio Link Setup procedure or by the Uplink Signalling Transfer procedure when the UE makes its first access in a cell controlled by the DRNS/DBSS. The UE Context is deleted by the Radio Link Deletion procedure, by the Common Transport Channel Resources Release procedure, or by the Downlink Signalling Transfer procedure when neither any Radio Links nor any common transport channels are established towards the concerned UE. The UE Context is identified by the SCCP Connection for messages using connection oriented mode of the signalling bearer and the D-RNTI for messages using connectionless mode of the signalling bearer, unless specified otherwise in the procedure text.

Distant RNC Context: The Distant RNC context is created by the first Common Measurement Initiation Procedure or Information Exchange Initiation Procedure initiated by one RNC/BSS and requested from another RNC/BSS. The Distant RNC Context is deleted after the Common Measurement Termination, the Common Measurement Failure, the Information Exchange Termination or the Information Exchange Failure procedure when there is no more Common Measurement and no more Information to be provided by the requested RNC/BSS to the requesting RNC/BSS. The Distant RNC Context is identified by an SCCP connection as, for common measurements and information exchange, only the connection oriented mode of the signalling bearer is used.

Real Time (RT): Real time bearer services are those services associated with RABs whose traffic class is defined as *Conversational* or *Streaming*.

Non Real Time (NRT): Non Real time bearer services are those services associated with RABs whose traffic class is defined as *Interactive* or *Background*.

Signalling radio bearer 2 (SRB2): The signalling radio bearer 2 is used by the UE to access a GERAN cell in order to perform RRC procedures [36].

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

A-GPS Assisted-GPS

ALCAP Access Link Control Application Part

ASN.1 Abstract Syntax Notation One

BER Bit Error Rate
BLER Block Error Rate
BSS Base Station Subsystem
CBSS Controlling BSS

CCCH Common Control Channel

CCPCH Common Control Physical Channel

CCTrCH Coded Composite Transport Channel

CFN Connection Frame Number

C-ID Cell Identifier
CM Compressed Mode
CN Core Network

CPCH Common Packet Channel
CPICH Common Pilot Channel
CRNC Controlling RNC
DBSS Drift BSS

C-RNTI Cell Radio Network Temporary Identifier

CS Circuit Switched

CTFC Calculated Transport Format Combination DCH Dedicated Channel

DGPS Differential GPS DL Downlink

DPC Downlink Power Control

DPCCH Dedicated Physical Control Channel
DPCH Dedicated Physical Channel
DPDCH Dedicated Physical Data Channel
DRAC Dynamic Radio Access Control

DRNC Drift RNC DRNS Drift RNS

D-RNTI Drift Radio Network Temporary Identifier

DRX Discontinuous Reception
DSCH Downlink Shared Channel
Ec Energy in single Code

EDSCHPC Enhanced Downlink Shared Channel Power Control

EP Elementary Procedure
FACH Forward Access Channel
FDD Frequency Division Duplex

FN Frame Number FP Frame Protocol

GERAN GSM EDGE Radio Access Network

GA Geographical Area

GAI Geographical Area Identifier
GPS Global Positioning System
GRA GERAN Registration Area
GSM Global System Mobile

HW Hardware
IB Information Block
ID Identity or Identifier
IE Information Element

IMSI International Mobile Subscriber Identity

IP Internet Protocol
IPDL Idle Period DownLink

ISCP Interference Signal Code Power

LAC Location Area Code LCR Low Chip Rate (1.28 Mcps)

LCS Location Services
MAC Medium Access Control
MS Mobile Station

NAS Non Access Stratum
No Reference Noise

O&M Operation and Maintenance

P(-)CCPCH Primary CCPCH PCH Paging Channel

OTD Observed Time Difference

P(-)CPICH Primary CPICH

PCPCH Physical Common Packet Channel PCS Personal Communcation Services PDSCH Physical Downlink Shared Channel

PDU Protocol Data Unit PhCH Physical Channel PICH Paging Indication Channel Pos Position or Positioning

PRACH Physical Random Access Channel

PS Packet Switched
QE Quality Estimate
RAC Routing Area Code
RACH Random Access Channel
RAN Radio Access Network

RANAP Radio Access Network Application Part

RB Radio Bearer
RL Radio Link
RLC Radio Link Control
RLS Radio Link Set
RM Rate Matching

RNC Radio Network Controller RNS Radio Network Subsystem

RNSAP Radio Network Subsystem Application Part
RNTI Radio Network Temporary Identifier

RRC Radio Resource Control
RSCP Received Signal Code Power

SBSS Serving BSS

Rx Receive or Reception

Sat Satellite

SCCP Signalling Connection Control Part

S(-)CCPCH Secondary CCPCH
SCH Synchronisation Channel
SCTD Space Code Transmit Diversity

SDU Service Data Unit SF System Frame

SFN System Frame Number
SHCCH Shared Control Channel
SIR Signal-to-Interference Ratio
SNA Shared Network Area
SRB2 Signalling radio bearer 2

SRNC Serving RNC SRNS Serving RNS

S-RNTI Serving Radio Network Temporary Identifier SSDT Site Selection Diversity Transmission

STTD Space Time Transmit Diversity

TDD Time Division Duplex TF Transport Format

TFCI Transport Format Combination Indicator
TFCS Transport Format Combination Set

TFS Transport Format Set

TGCFN Transmission Gap Connection Frame Number

ToAWE Time of Arrival Window Endpoint ToAWS Time of Arrival Window Startpoint

TPC Transmit Power Control TrCH Transport Channel

TS Time Slot

TSG Technical Specification Group
TSTD Time Switched Transmit Diversity
TTI Transmission Time Interval
TX Transmit or Transmission

UARFCN UTRA Absolute Radio Frequency Channel Number

UDP User Datagram Protocol UC-ID UTRAN Cell Identifier UE User Equipment

UL Uplink

UMTS Universal Mobile Telecommunications System

URA UTRAN Registration Area

U-RNTI UTRAN Radio Network Temporary Identifier

USCH Uplink Shared Channel

UTRA Universal Terrestrial Radio Access

UTRAN Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the DRNC/CRNC exactly and completely. The SRNC functional behaviour is left unspecified. The Physical Channel Reconfiguration procedure and Reset procedure are an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:
 - 1) Functionality which "shall" be executed

The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

2) Functionality which "shall, if supported" be executed

The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements for including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include ID and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

4.3 Source Signalling Address Handling

The sender of an RNSAP messages shall include the Source Signalling Address, i.e. the Signalling Address of the sending node.

4.4 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD] This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD.

This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section

following the heading applies only to FDD.

[TDD] This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD,

including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including

3.84Mcps TDD and 1.28Mcps TDD.

- [3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.
- [1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.
- [FDD ...] This tagging indicates that the enclosed text following the "[FDD " applies only to FDD.

 Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.
- [TDD ...] This tagging indicates that the enclosed text following the "[TDD " applies only to TDD including 3.84Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.
- [3.84Mcps TDD ...] This tagging indicates that the enclosed text following the "[3.84Mcps TDD " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.
- [1.28Mcps TDD ...] This tagging indicates that the enclosed text following the "[1.28Mcps TDD " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.
- Procedure When referring to an elementary procedure in the specification, the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.
- Message When referring to a message in the specification, the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.
- IE When referring to an information element (IE) in the specification, the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.
- Value of an IE When referring to the value of an information element (IE) in the specification, the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)" or "SSDT Active in the UE".

5 RNSAP Services

5.1 RNSAP Procedure Modules

The Iur interface RNSAP procedures are divided into four modules as follows:

- 1. RNSAP Basic Mobility Procedures;
- 2. RNSAP DCH Procedures;
- 3. RNSAP Common Transport Channel Procedures;
- 4. RNSAP Global Procedures.

The Basic Mobility Procedures module contains procedures used to handle the mobility within UTRAN, within GERAN and between UTRAN and GERAN.

The DCH Procedures module contains procedures that are used to handle DCHs, DSCHs, and USCHs between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH, DSCH, and USCH traffic between corresponding RNSs is not possible.

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams (excluding the DSCH and USCH) over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs/CBSSs.

5.2 Parallel Transactions

Unless explicitly indicated in the procedure specification, at any instance in time one protocol peer shall have a maximum of one ongoing RNSAP DCH procedure related to a certain UE.

6 Services Expected from Signalling Transport

The signalling transport shall provide two different service modes for the RNSAP.

- 1. Connection oriented data transfer service. This service is supported by a signalling connection between two RNCs. It shall be possible to dynamically establish and release signalling connections based on the need. Each active UE shall have its own signalling connection. The signalling connection shall provide in sequence delivery of RNSAP messages. RNSAP shall be notified if the signalling connection breaks.
- 2. Connectionless data transfer service. RNSAP shall be notified in case a RNSAP message did not reach the intended peer RNSAP entity.

7 Functions of RNSAP

The RNSAP protocol provides the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;
- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;
- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;
- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS;
- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;
- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;
- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;
- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;
- GERAN Signalling Transfer. This function allows the SBSS and DBSS, the SRNC and DBSS or the SBSS and DRNC to pass information between the UE/MS and the SRNC/SBSS on an SRB2/CCCH controlled by the DBSS/DRNC;
- Paging. This function allows the SRNC/SBSS to page a UE in a URA/GRA or a cell in the DRNS;

- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS (excluding DSCH resources for FDD);
- Relocation Execution. This function allows the SRNC/SBSS to finalise a Relocation previously prepared via other interfaces;
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- DL Power Timeslot Correction [TDD]. This function enables the DRNS to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Measurements on Common Resources. This function allows an RNC/BSS to request from another RNC/BSS to initiate measurements on Common Resources. The function also allows the requested RNC/BSS to report the result of the measurements.
- Information Exchange. This function allows an RNC to request from another RNC the transfer of information. The function also allows the requested RNC to report the requested information.
- Resetting the Iur. This function is used to completely or partly reset the Iur interface.

The mapping between the above functions and RNSAP elementary procedures is shown in the Table 1.

Table 1: Mapping between functions and RNSAP elementary procedures

| Function | Elementary Procedure(s) |
|---------------------------------------|--|
| Radio Link Management | a) Radio Link Setup |
| Tradio Eliik Wahagomoni | b) Radio Link Addition |
| | c) Radio Link Deletion |
| | d) Unsynchronised Radio Link Reconfiguration |
| | e) Synchronised Radio Link Reconfiguration |
| | Preparation |
| | f) Synchronised Radio Link Reconfiguration |
| | Commit |
| | g) Synchronised Radio Link Reconfiguration |
| | Cancellation |
| | h) Radio Link Pre-emption |
| | i) Radio Link Parameter Update |
| Physical Channel Reconfiguration | Physical Channel Reconfiguration |
| Radio Link Supervision | a) Radio Link Failure |
| | b) Radio Link Restoration |
| Compressed Mode Control [FDD] | a) Radio Link Setup |
| | b) Radio Link Addition |
| | c) Compressed Mode Command |
| | d) Unsynchronised Radio Link Reconfiguration |
| | e) Synchronised Radio Link Reconfiguration |
| | Preparation |
| | f) Synchronised Radio Link Reconfiguration |
| | Commit |
| | g) Synchronised Radio Link Reconfiguration |
| Managements on Dadicated Daggerran | Cancellation |
| Measurements on Dedicated Resources | a) Dedicated Measurement Initiation b) Dedicated Measurement Reporting |
| | c) Dedicated Measurement Termination |
| | d) Dedicated Measurement Failure |
| DL Power Drifting Correction [FDD] | Downlink Power Control |
| DCH Rate Control | a) Radio Link Setup |
| Borrado Condo | b) Radio Link Addition |
| | c) Unsynchronised Radio Link Reconfiguration |
| | d) Synchronised Radio Link Reconfiguration |
| | Preparation |
| | e) Radio Link Congestion |
| CCCH Signalling Transfer | a) Uplink Signalling Transfer |
| | b) Downlink Signalling Transfer |
| GERAN Signalling Transfer | a) GERAN Uplink Signalling Transfer |
| | b) Downlink Signalling Transfer |
| Paging | Paging |
| Common Transport Channel Resources | a) Common Transport Channel Resources |
| Management | Initiation |
| | b) Common Transport Channel Resources |
| | Release |
| Relocation Execution | Relocation Commit |
| Reporting of General Error Situations | Error Indication |
| Measurements on Common Resources | a) Common Measurement Initiation |
| | b) Common Measurement Reporting |
| | c) Common Measurement Termination |
| Information Evolungo | d) Common Measurement Failure |
| Information Exchange | a) Information Exchange Initiation b) Information Reporting |
| | c) Information Exchange Termination |
| | d) Information Exchange Failure |
| DL Power Timeslot Correction [TDD] | Downlink Power Timeslot Control |
| Reset | Reset |
| 1/0901 | ハケシケに |

7.1 RNSAP functions and elementary procedures for lur-g.

The functions and RNSAP elementary procedures, which are applicable on the Iur-g interface are shown in the Table 1A.

Table 1A: RNSAP elementary procedures applicable on the lur-g interface

| Function | Elementary Procedure(s) |
|---------------------------------------|-------------------------------------|
| GERAN Signalling Transfer | a) GERAN Uplink Signalling Transfer |
| | b) Downlink Signalling Transfer |
| Paging | Paging |
| Relocation Execution | Relocation Commit |
| Reporting of General Error Situations | Error Indication |
| Measurements on Common Resources | a) Common Measurement Initiation |
| | b) Common Measurement Reporting |
| | c) Common Measurement Termination |
| | d) Common Measurement Failure |
| Information Exchange | a) Information Exchange Initiation |
| | b) Information Reporting |
| | c) Information Exchange Termination |
| | d) Information Exchange Failure |

Note: In the connection with the functions releated to the GERAN and UTRAN, the term RNC shall refer to RNC/BSS.

8 RNSAP Procedures

8.1 Elementary Procedures

In the following tables, all EPs are divided into Class 1 and Class 2 EPs.

Table 2: Class 1 Elementary Procedures

| Elementary | Initiating Message | Successful Outcome | Unsuccessful Outcome |
|------------------|-------------------------|----------------------------------|-------------------------|
| Procedure | | Response me ssage | Response me ssage |
| Radio Link Setup | RADIO LINK SETUP | RADIO LINK SETUP | RADIO LINK SETUP |
| | REQUEST | RESPONSE | FAILURE |
| Radio Link | RADIO LINK | RADIO LINK | RADIO LINK ADDITION |
| Addition | ADDITION REQUEST | ADDITION | FAILURE |
| | | RESPONSE | |
| Radio Link | RADIO LINK | RADIO LINK | |
| Deletion | DELETION REQUEST | DELETION | |
| | | RESPONSE | |
| Synchronised | RADIO LINK | RADIO LINK | RADIO LINK |
| Radio Link | RECONFIGURATION | RECONFIGURATION | RECONFIGURATION |
| Reconfiguration | PREPARE | READY | FAILURE |
| Preparation | DADIO LINIK | DADIO LINIK | DADIO LINIK |
| Unsynchronised | RADIO LINK | RADIO LINK | RADIO LINK |
| Radio Link | RECONFIGURATION | RECONFIGURATION | RECONFIGURATION |
| Reconfiguration | REQUEST | RESPONSE | FAILURE |
| Physical Channel | PHYSICAL CHANNEL | PHYSICAL CHANNEL RECONFIGURATION | PHYSICAL CHANNEL |
| Reconfiguration | RECONFIGURATION REQUEST | COMMAND | RECONFIGURATION FAILURE |
| Dedicated | DEDICATED | DEDICATED | DEDICATED |
| Measurement | MEASUREMENT | MEASUREMENT | MEASUREMENT |
| Initiation | INITIATION REQUEST | INITIATION | INITIATION FAILURE |
| IIIIIalion | INITIATION REGUEST | RESPONSE | INITIATION LAILONE |
| Common | COMMON | COMMON | COMMON TRANSPORT |
| Transport | TRANSPORT | TRANSPORT | CHANNEL RESOURCES |
| Channel | CHANNEL | CHANNEL | FAILURE |
| Resources | RESOURCES | RESOURCES | . , |
| Initialisation | REQUEST | RESPONSE | |
| Common | COMMON | COMMON | COMMON |
| Measurement | MEASUREMENT | MEASUREMENT | MEASUREMENT |
| Initiation | INITIATION REQUEST | INITIATION | INITIATION FAILURE |
| | | RESPONSE | |
| Information | INFORMATION | INFORMATION | INFORMATION |
| Exchange | EXCHANGE | EXCHANGE | EXCHANGE INITIATION |
| Initiation | INITIATION REQUEST | INITIATION | FAILURE |
| | | RESPONSE | |
| Reset | RESET REQUEST | RESET RESPONSE | |

Table 3: Class 2 Elementary Procedures

| Elementery Procedure | Initiating Massage |
|---------------------------------------|--|
| Elementary Procedure | Initiating Message |
| Uplink Signalling Transfer | UPLINK SIGNALLING TRANSFER INDICATION |
| GERAN Uplink Signalling Transfer | GERAN UPLINK SIGNALLING TRANSFER INDICATION |
| Downlink Signalling Transfer | DOWNLINK SIGNALLING |
| | TRANSFER REQUEST |
| Relocation Commit | RELOCATION COMMIT |
| Paging | PAGING REQUEST |
| Synchronised Radio Link | RADIO LINK RECONFIGURATION |
| Reconfiguration Commit | COMMIT |
| Synchronised Radio Link | RADIO LINK RECONFIGURATION |
| Reconfiguration Cancellation | CANCEL |
| Radio Link Failure | RADIO LINK FAILURE INDICATION |
| Radio Link Restoration | RADIO LINK RESTORE INDICATION |
| Dedicated Measurement Reporting | DEDICATED MEASUREMENT REPORT |
| Dedicated Measurement | DEDICATED MEASUREMENT |
| Termination | TERMINATION REQUEST |
| Dedicated Measurement Failure | DEDICATED MEASUREMENT |
| | FAILURE INDICATION |
| Downlink Power Control [FDD] | DL POWER CONTROL REQUEST |
| Compressed Mode Command [FDD] | COMPRESSED MODE COMMAND |
| Common Transport Channel | COMMON TRANSPORT CHANNEL |
| Resources Release | RESOURCES RELEASE REQUEST |
| Error Indication | ERROR INDICATION |
| Downlink Power Timeslot Control [TDD] | DL POWER TIMESLOT CONTROL REQUEST |
| Radio Link Pre-emption | RADIO LINK PREEMPTION |
| | REQUIRED INDICATION |
| Radio Link Congestion | RADIO LINK CONGESTION |
| Common Management Donorting | INDICATION COMMON MEASUREMENT |
| Common Measurement Reporting | REPORT |
| Common Measurement | COMMON MEASUREMENT |
| Termination | TERMINATION REQUEST |
| Common Measurement Failure | COMMON MEASUREMENT |
| | FAILURE INDICATION |
| Information Reporting | INFORMATION REPORT |
| Information Exchange Termination | INFORMATION EXCHANGE TERMINATION REQUEST |
| Information Exchange Failure | INFORMATION EXCHANGE |
| | FAILURE INDICATION |
| Radio Link Parameter Update | RADIO LINK PARAMETER UPDATE INDICATION |

8.2 Basic Mobility Procedures

8.2.1 Uplink Signalling Transfer

8.2.1.1 General

The procedure is used by the DRNC to forward a Uu message received on the CCCH to the SRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1.2 Successful Operation

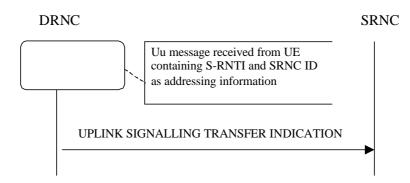


Figure 1: Uplink Signalling Transfer procedure, Successful Operation

When the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, DRNC shall send the UPLINK SIGNALLING TRANSFER INDICATION message to the SRNC identified by the SRNC-ID received from the UE.

If at least one URA Identity is being broadcast in the cell where the Uu message was received (the accessed cell), the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the accessed cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA where the Uu message was received in the *URA Information* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

The DRNC shall include in the message the C-RNTI that it allocates to identify the UE in the radio interface in the accessed cell. If there is no valid C-RNTI for the UE in the accessed cell , the DRNS shall allocate a new C-RNTI for the UE. If the DRNS allocates a new C-RNTI it shall also release any C-RNTI previously allocated for the UE.

If the DRNS has any RACH, [FDD - CPCH], and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and/or transport bearer are different from those in the old cell, then the DRNS shall not include the *Common Transport Channel Resources Initialisation not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition the DRNS shall release these RACH, [FDD - CPCH,] and/or FACH resources in old cell.

If the DRNS has any RACH, [FDD - CPCH], and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and transport bearer are the same as in the old cell, there is no need for Common Transport Channel Resources Initialisation to be initiated. In that case, DRNC may include the *Common Transport Channel Resources Initialisation not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition, the DRNS shall move these RACH, [FDD - CPCH,] and/or FACH resources to the new cell. If no Common Transfer Channel Resources Initialisation procedure is executed, the currently applicable Mac SDU sizes, flow control settings (including credits) and transport bearer shall continue to be used while the UE is in the new cell.

If no context exists for this UE in the DRNC, the DRNC shall create a UE Context for this UE, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DRNC is connected to in the UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE.

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, in which the Uu message was received in the UPLINK SIGNALLING TRANSFER INDICATION message. If the DRNC includes the *Cell GA Additional Shapes* IE in the UPLINK SIGNALLING TRANSFER INDICATION message, it shall also include the *Cell GAI* IE.

[FDD - The DRNC shall include the *DPC Mode Change Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports DPC mode change.]

[FDD- The DRNC shall include the *Flexible Hard Split Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports TFCI flexible hard split mode.]

The DRNC shall include [FDD - the *Cell Capability Container FDD* IE] [3.84Mcps TDD - the *Cell Capability Container TDD* IE] [1.28Mcps TDD - the *Cell Capability Container TDD LCR* IE] in the UPLINK SIGNALLING

TRANSFER INDICATION message if the accessed cell supports any functionalities listed in [FDD - 9.2.2.D] [3.84Mcps TDD - 9.2.3.1a] [1.28Mcps TDD - 9.2.3.1b].

If available, the DRNC shall include the SNA Information IE for the concerned cell.

When receiving the *SNA Information* IE, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

8.2.1.3 Abnormal Conditions

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8.2.1A GERAN Uplink SignallingTransfer

8.2.1A.1 General

The procedure is used by the DBSS to forward a Um message received on the SRB2 to the SBSS/SRNC. The procedure is also used by the DRNC to forward a Uu message received on the CCCH to the SBSS.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1A.2 Successful Operation

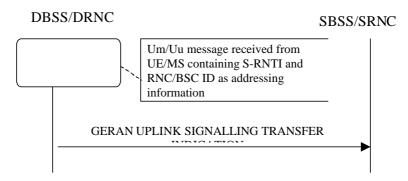


Figure 1A: GERAN Uplink Signalling Transfer procedure, Successful Operation

When the DBSS receives an Um message on the SRB2 in which the MS addressing information is G-RNTI, i.e. S-RNTI and BSC-ID, DBSS shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS/SRNC identified by the BSC-ID received from the MS.

Alternatively, when the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, and in which the SRNC-ID points to a GERAN BSS, the DRNC shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS identified by SRNC-ID received from the UE.

If at least one GRA/URA Identity is being broadcast in the cell where the Um/Uu message was received (the accessed cell), the DBSS/DRNC shall include a GRA/URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple GRA/URA Identities are being broadcast in the accessed cell, and the RNC/BSS Identity of all other RNC/BSSs that are having at least one cell within the GRA/URA where the Um/Uu message was received in the *URA Information* IE in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message.

If no context exists for this UE/MS in the DBSS/DRNC, the DBSS/DRNC shall create a UE Context for this UE/MS, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DBSS/DRNC is connected to in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE/MS.

8.2.1A.3 Abnormal Conditions

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8.2.2 Downlink Signalling Transfer

8.2.2.1 General

The procedure is used by the SRNC to request to the DRNC the transfer of a Uu message on the CCCH in a cell. When used, the procedure is in response to a received Uplink Signalling Transfer procedure.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.2.1.1 Downlink Signalling Transfer for lur-g

The procedure is used by the SRNC/SBSS to request to the DBSS the transfer of a Um message on the SRB2 in a cell.

The procedure is used by the SBSS to request to the DRNC the transfer of a Uu message on the CCCH in a cell.

8.2.2.2 Successful Operation



Figure 2: Downlink Signalling Transfer procedure, Successful Operation

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC to the DRNC.

The message contains the Cell Identifier (C-ID) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE identified by the *D-RNTI* IE.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has no dedicated resources (DCH, [TDD - USCH,] and/or DSCH) allocated for the UE, the DRNS shall release the D-RNTI, the UE Context and any RACH, [FDD - CPCH,] and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has dedicated resources allocated for the UE, the DRNS shall only release any RACH, [FDD - CPCH,] and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

8.2.2.2.1 Successful Operation for lur-g

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC/SBSS to the DBSS or by the SBSS to the DRNC.

The message contains the Cell Identifier (C-*ID*) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DBSS shall send the L3 Information on the SRB2 in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

8.2.2.3 Abnormal Conditions

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

8.2.2.3.1 Abnormal Conditions for lur-g

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC/DBSS than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

If the DRNC receives from the SBSS the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to "not Release D-RNTI", the DRNC shall ignore this IE and release the D-RNTI.

If the DBSS receives from the SBSS/SRNC the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to "not Release D-RNTI", the DBSS shall ignore this IE and release the D-RNTI.

8.2.3 Relocation Commit

8.2.3.1 General

The Relocation Commit procedure is used by source RNC to execute the Relocation. This procedure supports the Relocation procedures described in [2].

This procedure shall use the signalling bearer mode specified below.

8.2.3.2 Successful Operation



Figure 3: Relocation Commit procedure, Successful Operation

The source RNC sends the RELOCATION COMMIT message to the target RNC to request the target RNC to proceed with the Relocation. When the UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receipt of the RELOCATION COMMIT message from the source RNC the target RNC finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC shall use this information when finalising the Relocation.

8.2.3.2.1 Successful Operation for lur-g

The source RNC/BSS sends the RELOCATION COMMIT message to the target RNC/BSS to request the target RNC/BSS to proceed with the Relocation.

The message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE/MS context in the DBSS.

Upon receipt of the RELOCATION COMMIT message from the source RNC/BSS, the target RNC/BSS finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC/BSS shall use this information when finalising the Relocation.

8.2.3.3 Abnormal Conditions

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8.2.4 Paging

8.2.4.1 General

This procedure is used by the SRNC to indicate to a CRNC that a UE shall be paged in a cell or URA that is under the control of the CRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.4.2 Successful Operation



Figure 4: Paging procedure, Successful Operation

The procedure is initiated with a PAGING REQUEST message sent from the SRNC to the CRNC.

If the message contains the *C-ID* IE, the CRNC shall page in the indicated cell. Alternatively, if the message contains the *URA-ID* IE, the CRNC shall page in all cells that it controls in the indicated URA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CRNC shall calculate the Paging Occasions from the *IMSI* IE and the *DRX Cycle Length Coefficient* IE according to specification in ref. [15] and apply transmission on PICH and PCH accordingly.

8.2.4.2.1 Successful Operation for lur-g

The procedure is initiated with a PAGING REQUEST message sent from the SBSS to the CRNC/CBSS or from the SRNC to the CBSS.

If the message contains the *URA-ID* IE, the CRNC/CBSS shall page in all cells that it controls in the indicated URA/GRA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC/CBSS shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CBSS shall calculate the Paging Occasions from the *IMSI* IE and the *GERAN DRX Cycle Length Coefficient* IE according to specification in ref. [36] and apply transmission on PCCCH or PACCH accordingly.

8.2.4.3 Abnormal Conditions

8.2.4.3.1 Abnormal Conditions for lur-g

If the DRNC receives a PAGING REQUEST message from the SBSS, which contains the *C-ID* IE, the message shall be ignored.

If the DBSS receives a PAGING REQUEST message from the SBSS/SRNC, which contains the *C-ID* IE, the message shall be ignored.

8.3 DCH Procedures

8.3.1 Radio Link Setup

8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

8.3.1.2 Successful Operation

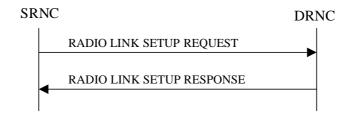


Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s). The Radio Link Setup procedure is initiated with this RADIO LINK SETUP REQUEST message sent from the SRNC to the DRNC.

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

Transport Channels Handling:

DCH(s):

[TDD - If the *DCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DCHs according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

[TDD - If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

[FDD - For each DCH which do not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the DCH FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise between different frames of the data frames of the DCHs in the downlink on the radio interface in congestion situations once the new RL(s) have been activated.

The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.

If the *DCH Information* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

- If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the Guaranteed Rate in the uplink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
- If the Guaranteed Rate Information IE includes the Guaranteed DL Rate IE, the DRNS shall apply the Guaranteed Rate in the downlink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the DCH Specific Info IE in the DCH Information IE does not include the Guaranteed DL Rate IE, the DRNS shall not limit the user rate of the downlink of the DCH.

DSCH(s):

If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs [FDD - on the RL indicated by the PDSCH RL ID IE]. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *DSCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DSCH. In addition, the DRNC shall send a valid set of *DSCH Scheduling Priority* IE and *MAC-c/sh SDU Length* IE parameters to the SRNC in the RADIO LINK SETUP RESPONSE message. If the *PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.

The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK SETUP RESPONSE message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].

[TDD - USCH(s)]:

[TDD - The DRNS shall use the list of RB Identities in the *RB Info* IE in the *USCH information* IE to map each *RB Identity* IE to the corresponding USCH. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *USCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the USCH.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall establish the requested USCHs, and the DRNC shall provide the [3.84 Mcps TDD - *USCH Information Response* IE] [1.28 Mcps TDD - *USCH Information Response LCR* IE] in the RADIO LINK SETUP RESPONSE message.]

[TDD - CCTrCH Handling]:

[TDD - If the *UL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information LCR* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *TPC CCTrCH List* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

HS-DSCH(s):

If the RADIO LINK SETUP REQUEST message includes *HS-DSCH Information* IE and if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNS shall use this information to configure the indicated HS-DSCH resources on this radio link. If the *HS-PDSCH RL ID* IE does not indicate a radio link in the DRNS, then the DRNS shall store the configuration of the HS-DSCH according to the received *HS-DSCH Information* IE. The DRNS shall store the latest HS-DSCH configuration until the UE context is deleted.

In addition, if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

If the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNS shall also include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer(s) for the HS-DSCH MAC-d flows on this radio link.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.

If the *HS-DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related MAC-d flows.

[FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK SETUP RESPONSE message for each MAC-d flow, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].

[FDD - If RADIO LINK SETUP REQUEST message includes the *HS-DSCH Information* IE and the *PDSCH RL ID* IE indicates a Radio Link in the DRNS, then the DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions.

If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs.

Physical Channels Handling:

[FDD - Compressed Mode]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or the last Radio Link is deleted.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD- If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD - DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number I*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[FDD – Phase Reference Handling]:

[FDD – If the RADIO LINK SETUP REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for DCH or DSCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for HS-DSCH.]

[FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK SETUP RESPONSE message.]

General:

[FDD - If the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

[FDD - If the received *Limited Power Increase* IE is set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]

[FDD - If the RADIO LINK SETUP REQUEST message includes *Split Type* IE, then the DRNS shall apply this information to the new configuration of TFCI.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Length of TFCI2* IE, the DRNS shall apply this information to the length of TFCI(field 2).]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Maximum Number of DL Physical Channels per Timeslot* IE the DRNC shall take this value into account when allocating physical resources, otherwise the DRNC can assume that this UE capability is consistent with the other signalled UE capabilities.]

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Support for 8PSK* IE within the *DL Physical Channel Information* IE *or UL Physical Channel Information* IE, the DRNC shall take this into account in the specified direction when allocating physical resources, otherwise the DRNC can assume that this UE does not support 8PSK resource allocation.]

Radio Link Handling:

Diversity Combination Control:

[FDD - The *Diversity Control Field* IE indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not.

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

When an RL is to be combined, the DRNS shall choose which RL(s) to combine it with.]

[FDD - In the RADIO LINK SETUP RESPONSE message, the DRNC shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE
 message or for the first RL in the RADIO LINK SETUP RESPONSE message, the DRNC shall include
 in the DCH Information Response IE in the RADIO LINK SETUP RESPONSE message the Binding ID
 IE and Transport Layer Address IE for the transport bearer to be established for each DCH of this RL.]
- [FDD Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined.]

[TDD - The DRNC shall always include in the RADIO LINK SETUP RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer the *Binding ID* IE and the *Transport Layer Address* IE shall be included in the RADIO LINK SETUP RESPONSE message for only one of the DCHs in the set of co-ordinated DCHs.

[FDD-Transmit Diversity]:

[FDD - If the cell in which the RL is being set up is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK SETUP RESPONSE message indicating the configured Closed loop timing adjustment mode of the cell.]

[FDD - When the *Diversity Mode* IE is set to "STTD", "Closed loop mode1", or "Closed loop mode2", the DRNC shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indicator* IE].

DL Power Control:

[FDD - If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constrains when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by $Maximum\ DL\ TX\ Power$ IE and $Minimum\ DL\ TX\ Power$ IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the $Maximum\ DL\ TX\ Power$ IE or lower than indicated by the $Minimum\ DL\ TX\ Power$ IE on any DL DPCH of the RL except during compressed mode, when the dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If both the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not included in the RADIO LINK SETUP REQUEST message, then DRNC shall determine the initial Uplink SIR Target and include it in the *Uplink SIR Target* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD - The DRNC shall use the *Uplink SIR Target CCTrCH* IEs in the RADIO LINK SETUP RESPONSE message to indicate for any UL CCTrCH an Uplink SIR Target value in case this is deviating from the value included in the *Uplink SIR Target* IE specified for the Radio Link. If in any [3.84Mcps TDD - *UL CCTrCH Information IE*] [1.28Mcps TDD - *UL CCTrCH Information LCR* IE] the *Uplink SIR Target CCTrCH* IE is not included, the value of the *Uplink SIR Target* IE shall apply to the respective UL CCTrCH.]

[FDD - If the *Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL TX Power. If the *Enhanced Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL Tx Power.]

[TDD - If the *Primary CCPCH RSCP* IE [3.84Mcps TDD -and/or the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - and/or the *DL Time Slot ISCP Info LCR* IE] are present, the DRNC should use the indicated values when deciding the Initial DL TX Power. for the Radio Link. The DRNS shall use the indicated DL Timeslot ISCP when determining the initial DL power per time slot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[3.84 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[1.28McpsTDD - If the *TSTD Support Indicator* IE is present, the DRNS shall apply this information when configuring the transmit diversity for the new radio link.]

[FDD - The DRNS shall start any DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code of a RL until UL synchronisation is achieved on the Uu interface for the concerned RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.15).]

[TDD - The DRNS shall start any DL transmission using the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved on the Uu interface for the concerned RL. No inner loop power control shall be performed during this period. Then after UL synchronisation, the DL power shall vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[FDD - If the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the DRNS shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.15, using the *DL Power Balancing Information* IE. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing i.e. *P_{init}* shall be set to the power level indicated by the *Initial DL TX Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE.]

[FDD - If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

Neighbouring Cell Handling:

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Mode1 Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE, the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE or the Neighbouring TDD Cell Information LCR IE.If the Neighbouring TDD Cell Information IE includes the Sync Case IE for the set to "Case1", the DRNC shall include the Time Slot For SCH IE in the Neighbouring TDD Cell Information IE. If the Neighbouring TDD Cell Information IE includes Sync Case IE set to "Case2", the DRNC shall include the SCH Time Slot IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- If the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE
- [FDD- The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports *Flexible Hard Split* mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalities listed in 9.22.D, 9.2.3.1a and 9.2.3.1b.

- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise the *Restriction State lindicator* IE may be absent. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Restriction State lindicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.
- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

If there are GSM neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring GSM Cell Information* IE for each of the GSM neighbouring cells. If available the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information* IE. If available the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK SETUP RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK SETUP RESPONSE message.]

General:

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity IE and the S-Field Length IE, the DRNS shall activate SSDT, if supported, using the SSDT Cell Identity IE, S-Field Length IE and SSDT Cell Identity Length IE.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Qth Parameter* IE in addition to the *SSDT Cell Identity* IE, the DRNS shall use the *Qth Parameter* IE, if Qth signalling is supported, when SSDT is activated in the concerned new RL.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity for EDSCHPC IE, the DRNS shall activate enhanced DSCH power control, if supported, using the SSDT Cell Identity for EDSCHPC IE and SSDT Cell Identity Length IE as well as Enhanced DSCH PC IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both SSDT Cell Identity IE and SSDT Cell Identity for EDSCHPC IE, then the DRNS shall ignore the SSDT Cell Identity for EDSCHPC

IE. If the enhanced DSCH power control is activated and the *TFCI PC Support Indicator* IE is set to "TFCI PC Mode 2 Supported", the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

[FDD - If the *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *D-RNTI* IE, the *CN PS Domain Identifier* IE and/or the *CN CS Domain Identifier* IE for the CN domains (using LAC and RAC of the current cell) to which the DRNC is connected.

[FDD - If the *D-RNTI* IE was included the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE.]

[TDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *UARFCN* IE, the *Cell Parameter ID* IE and the *SCTD Indicator* IE.]

[3.84Mcps TDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Sync Case* IE and if the *Sync Case* IE is set to "Case 2", the DRNC shall also include the *SCH Time Slot* IE in the RADIO LINK SETUP RESPONSE message. If the included *Sync Case* IE is set to "Case1", the DRNC shall also include the *Time Slot For SCH* IE]

[3.84Mcps TDD - The DRNC shall include the Secondary CCPCH Info TDD IE in the RADIO LINK SETUP RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the Secondary CCPCH Info TDD IE in the RADIO LINK SETUP RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the *URA Information* IE within the RADIO LINK SETUP RESPONSE message URA Innformation for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEsof all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK SETUP RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK SETUP RESPONSE message, it shall also include the *Cell GAI* IE

If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC

shall include in the RADIO LINK SETUP RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the *Permanent NAS UE Identity* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK SETUP REQUEST message includes the *Permanent NAS UE Identity* IE and a *C-ID* IE corresponding to a cell reserved for operator use, the DRNS shall use this information to determine whether it can set up a Radio Link on this cell or not for the considered UE Context.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD - Radio Link Set Handling]:

[FDD - The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The DRNS shall use the *First RLS Indicator* IE to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context.]

[FDD - The UL oout-of-sync algorithm defined in ref. [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

Response Message:

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH, for each set of co-ordinated DCHs and for each DSCH [TDD - and USCH]. This information shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message when all the RLs have been successfully established.

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message the DRNS shall:

- [FDD start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerned RL on the Uu interface;
- if the Delayed Activation IE indicates "CFN":

- [FDD start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
- [TDD start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

8.3.1.3 Unsuccessful Operation

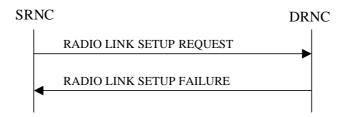


Figure 6: Radio Link Setup procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the DRNC shall respond with a RADIO LINK SETUP FAILURE message. The DRNC shall include in the RADIO LINK SETUP FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RL identified by the *PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall reject the procedure and send the RADIO LINK SETUP FAILURE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- [FDD UL Scrambling Code Already in Use];
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- [FDD Combining Resources not available];
- Combining not Supported
- Requested Configuration not Supported;
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Number of DL codes not supported;
- Number of UL codes not supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;

- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];
- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- Not enough User Plane Processing Resources.

8.3.1.4 Abnormal Conditions

If the DRNC receives either an S-RNTI or a D-RNTI which already has RL(s) established the DRNC shall send the RADIO LINK SETUP FAILURE message to the SRNC, indicating the reason for failure.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes both the *Initial DL TX Power* IE and the *Primary CPICH Ec/No* IE or does not include either of these IEs, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Radio Link Setup procedure and shall respond with a RADIO LINK SETUP FAILURE message.

[FDD - If only the *Initial DL TX Power* IE or the *Uplink SIR Target* IE is included in the RADIO LINK SETUP REQUEST message, then DRNC shall reject the Radio Link Setup procedure and shall respond with the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes *TFCI Signalling Mode* IE set to "Split", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Length of TFC12* IE but the *Split type* IE is set to "Logical", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Split Type* IE set to the value "Hard" and the *Length Of TFCI*2 IE set to the value "1", "2", "5", "8", "9" or "10", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes the *Length of TFCI*2 IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

8.3.2 Radio Link Addition

8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[FDD - The Radio Link Addition procedure serves to establish one or more new Radio Links which do not contain the DSCH. If the DSCH shall be moved into a new Radio Link, the Radio Link reconfiguration procedure shall be applied.]

[TDD - The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

8.3.2.2 Successful Operation

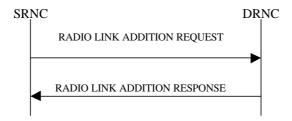


Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Transport Channel Handling:

[3.84 Mcps TDD - The DRNC shall include the *UL/DL DPCH Information* IE within the *UL/DL CCTrCH Information* IE for each CCTrCH that requires DPCHs.]

[1.28 Mcps TDD - The DRNC shall include the *UL/DL DPCH Information LCR* IE within the *UL/DL CCTrCH Information LCR* IE for each CCTrCH that requires DPCHs.]

DSCH:

[3.84 Mcps TDD - If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response* IE for each DSCH.]

[1.28 Mcps TDD - If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response LCR* IE for each DSCH.]

[TDD - USCH:]

[3.84 Mcps TDD - If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response* IE for each USCH.]

[1.28 Mcps TDD - If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response LCR* IE for each USCH.]

Physical Channels Handling:

[FDD-Compressed Mode]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated (all ongoing) Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to the latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]
- FDD If the *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]
- [FDD If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

[FDD-DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[TDD - CCTrCH Handling]:

[TDD - If the *UL CCTrCH Information* IE is present, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD - If the *DL CCTrCH Information* IE is present, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[FDD - Phase Reference Handling]:

[FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK ADDITION RESPONSE message.]

General:

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

Radio Link Handling:

Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the DRNS shall combine the new RL with existing RL(s) or not on the Iur.

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When a new RL is to be combined the DRNS shall choose which RL(s) to combine it with.
- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case the DRNC shall include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message.

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined.

[TDD - The DRNC shall always include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for only one of the DCHs in the set of co-ordinated DCHs.

If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

[FDD-Transmit Diversity]:

The DRNS shall activate any feedback mode diversity according to the received settings.

[FDD - If the cell in which the RL is being added is capable to provide Close loop Tx diversity, the DRNC shall indicate the Closed loop timing adjustment mode of the cell by includiing the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - When the *Transmit Diversity Indicator* IE is present the DRNS shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE using the diversity mode of the existing Radio Link(s).]

DL Power Control:

[FDD - If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE measured by the UE are included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

[TDD - If the *Primary CCPCH RSCP* IE [3.84Mcps TDD - and/or the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - and/or the *DL Time Slot ISCP Info LCR* IE] are included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use them in the calculation of the Initial DL TX Power. If the *Primary CCPCH RSCP* IE [3.84Mcps TDD - and *DL Time Slot ISCP Info IE*] [1.28Mcps TDD - and *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [10] subclause 5.2.1.2) and the power control procedure (see 8.3.7)].

[TDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[3.84 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK ADDITION REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

UL Power Control:

The DRNC shall also provide the configured UL Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

The DRNC shall provide the configured *Maximum DL TX Power* IE and *Minimum DL TX Power* IE for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL [FDD - except during compressed mode, when the

 dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.15. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. P_{init} shall be set to the power level which is calculated based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE (if received), or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing RLs.]

[FDD - If activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

Neighbouring Cell Handling:

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Model Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE and the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE. or the Neighbouring TDD Cell Information LCR IE.If the Neighbouring TDD Cell Information IE includes the Sync Case IE set to "Case1", the DRNC shall include the Time SlotFor SCH IE in the Neighbouring TDD Cell Information IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE set to "Case2", the DRNC shall include the SCH Time Slot IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK ADDITION RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- [FDD The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE if this information is available.]
- [FDD The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports *Flexible Hard Split* mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalities listed in 9.22.D, 9.2.3.1a and 9.2.3.1b.
- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise *Restriction State lindicator* IE may be absent. The DRNC shall include the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.
- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

If there are GSM neighbouring cells to the cell(s) in which a radio link is established, the DRNC shall include the *Neighbouring GSM Cell Information* IE in the RADIO LINK ADDITION RESPONSE message for each

of the GSM neighbouring cells. If available the DRNC shall include the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information IE*. If available the DRNC shall also include the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK ADDITION RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR*- IE in the -RADIO LINK ADDITION RESPONSE message.]

General:

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE, the DRNSshall, if supported, activate SSDT for the concerned new RLusing the indicated SSDT Cell Identity.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Qth Parameter* IE in addition to the *SSDT Cell Identity* IE, the DRNS shall use the *Qth Parameter* IE, if Qth signalling is supported, when SSDT is activated in the concerned new RL.]

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK ADDITION RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK ADDITION RESPONSE message, it shall also include the *Cell GAI* IE.

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a URA Information for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEs of all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

[FDD - If the UE has been allocated one or several DCH controlled by DRAC and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link established in a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

[3.84Mcps TDD - The DRNC shall include the Secondary CCPCH Info TDD IE in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information

Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the Secondary CCPCH Info TDD IE in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

If the *Permanent NAS UE Identity* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can add the Radio Link on this cell or not.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK ADDITION RESPONSE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD-Radio Link Set Handling]:

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context.]

[FDD - After addition of the new RL(s), the UL out-of-sync algorithm defined in ref. [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters $N_OUTSYNC_IND$ and $T_RLFAILURE$ that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

Response message:

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message the DRNS shall:

- [FDD -start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":

- not start any DL transmission for the concerning RL on the Uu interface;
- if the *Delayed Activation* IE indicates "CFN":
 - [FDD start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
- [TDD start transmission on the new RL at the CFN indicated in the Activation CFN IE as specified in ref. [4].]

8.3.2.3 Unsuccessful Operation

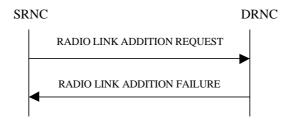


Figure 8: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one RL is unsuccessful, the DRNC shall respond with RADIO LINK ADDITION FAILURE message. DRNC shall include in the RADIO LINK ADDITION FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some RL(s) were established successfully, the DRNC shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Combining Resources not Available;
- Combining not Supported
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- CM not Supported;
- Reconfiguration CFN not Elapsed;
- Number of DL Codes not Supported;
- Number of UL codes not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

Transport Layer Causes:

Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- Not enough User Plane Processing Resources.

8.3.2.4 Abnormal Conditions

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available in the DRNC for the considered UE Context, the DRNC shall reject the procedure for this particular Radio Link and send the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Status* IEs in the *Active Pattern Sequence Information* IE and it does not address exactly all ongoing compressed mode patterns the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the *Cause* IE value "Invalid CM settings".]

[FDD - If the RADIO LINK ADDITION REQUEST message is used to establish a new RL without compressed mode when compressed mode is active for the existing RL(s) (as specified in subclause 8.3.2.2), and if at least one of the new RLs is to be established in a cell that has the same UARFCN (both UL and DL) as at least one cell with an already existing RL, the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s), the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

8.3.3 Radio Link Deletion

8.3.3.1 General

The Radio Link Deletion procedure is used to release the resources in a DRNS for one or more established radio links towards a UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Deletion procedure may be initiated by the SRNC at any time after establishing a Radio Link.

8.3.3.2 Successful Operation

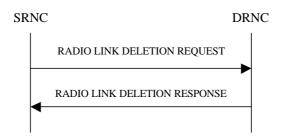


Figure 9: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the SRNC to the DRNC.

Upon receipt of this message, the DRNS shall delete the radio link(s) identified by the *RL ID* IE(s) in the message, shall release all associated resources and shall respond to the SRNC with a RADIO LINK DELETION RESPONSE message.

If the radio link(s) to be deleted represent the last radio link(s) for the UE in the DRNS and if the UE is not using any common resources in the DRNS, then the DRNC shall release the UE Context.

[FDD - After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILUREthat are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

8.3.3.3 Unsuccessful Operation

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8.3.3.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE does not exist, the DRNC shall respond with the RADIO LINK DELETION RESPONSE message.

8.3.4 Synchronised Radio Link Reconfiguration Preparation

8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.4.2 Successful Operation

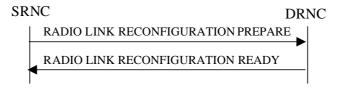


Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon receipt, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IEs, the DRNS shall treat them each as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Traffic Class* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.
- [FDD If the *DCHs To Modify* IE contains a *DRAC Control* IE set to "requested" and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link established in a cell in which DRAC is active. If the DRNS does not support DRAC, DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- [TDD If the *DCHs* <u>*To Modify</u> -IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH- in the new configuration.]

- [TDD If the *DCH-s* *<u>To Modify</u> IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]
- If the *DCHs to Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs, the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCH Information* IE includes a *DCHs To Add* IE with multiple *DCH Specific Info* IEs, the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD For each DCH which do not belong to a set of co-ordinated DCHs and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4]. [TDD If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.
- The DRNS should store the *Traffic Class* IE received for a DCH to be added in the new configuration. The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]
- [FDD If the *DRAC Control* IE is set to "requested" in the *DCH Specific Info* IE for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each radio link supported by a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- If the *DCHs to Add* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs to Add* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs to Add* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.
- -[TDD The DRNS shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]
- [TDD The DRNS shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration-configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCH To Delete*, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink DPCCH *Slot Format* to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control when the new configuration is being used.]

- [FDD If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]
- [FDD If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the DRNS shall apply the values in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD If the *DL DPCH Information* IE includes the *Number of DL Channelisation Codes* IE, the DRNS shall allocate given number of Downlink Channelisation Codes per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new configuration shall be included in the RADIO LINK RECONFIGURATION READY message within the *DL Code Information* IE as a *FDD DL Channelisation Code Number* IE when sent to the SRNC. If some Transmission Gap Pattern sequences using 'SF/2' method are already initialised in the DRNS, DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message in case the DRNS selects to change the Scrambling code change method for one or more DL Channelisation Code.]
- [FDD When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]
- [FDD If the *DL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the DRNS shall apply the new slot format used in DPCH in DL.]
- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the DRNS shall apply the new signalling mode of the TFCI.]
- [FDD If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the DRNS shall apply the new parameter to define whether fixed or flexible positions of transport channels shall be used in the physical channel.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IEset to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]
 - [FDD If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]
 - [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes *Split Type IE*, then the DRNS shall apply this information to the new configuration of TFCI.]
- [FDD If the *DL DPCH Information* IE includes the *Length of TFCI2* IE, the DRNS shall apply this information to the length of TFCI(field 2) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or until the last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE and the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to 'SF/2', the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not].

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs, then the DRNS shall treat them each as follows:]

- [TDD If any of the *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs includes any of the *TFCS* IE, *TFCI coding* IE, *Puncture limit* IE, or *TPC CCTrCH ID* IEs the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]
- [TDD If any of the following listed DPCH information IEs are modified in the new prepared configuration, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the IEs indicating the new values: Repetition Period IE, Repetition Length IE, TDD DPCH Offset IE, [3.84Mcps TDD UL Timeslot Information IE,] [1.28Mcps TDD UL Timeslot Information LCR IE,] [3.84Mcps TDD DL Timeslot Information IE,] [1.28Mcps TDD DL Timeslot Information LCR IE,] [3.84Mcps TDD Midamble Shift And Burst Type IE,] [1.28Mcps TDD Midamble Shift LCR IE,] TFCI Presence IE, [3.84Mcps TDD TDD Channelisation Code IE,] [1.28Mcps TDD and/or TDD Channelisation Code LCR IE,] [1.28Mcps TDD TDD UL DPCH Time Slot Format LCR IE or TDD DL DPCH Time Slot Format LCR IE].]
- [1.28Mcps TDD If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control according [12] and [22] in the new configuration.]
- [TDD If any of the *DL CCTrCH To Modify* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]
- [1.28Mcps TDD If the *UL CCTrCH to Modify* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall apply this value to the uplink TPC step size in the new configuration.]
- [TDD If the *DL CCTrCH to Modify* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall apply this value to the downlink TPC step size in the new configuration.]

[TDD - UL/DL CCTrCH Addition]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IEs or *DL CCTrCH To Add* IEs, the DRNS shall include this CCTrCH in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Add* IEs, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the DPCH information in [3.84Mcps TDD - *UL DPCH to be Added IE/DL DPCH to be Added IEs*] [1.28Mcps TDD - *UL DPCH to be Added LCR* IE/*DL DPCH to be Added LCR* IEs] [3.84Mcps TDD - If no UL DPCH is active before a reconfiguration which adds an UL DPCH, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation* IE in the RADIO LINK RECONFIGURATION READY message.]]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD TPC Downlink Step Size* IE within a *DL CCTrCH To Add* IE, the DRNS shall set the TPC step size of that CCTrCH to that value, otherwise the DRNS shall use the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - The DRNS shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [12] and [22] in the new configuration.]

[TDD - If any of the *DL CCTrCH To Add* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH To Add* IE includes *TDD TPC Uplink Step Size* IE, the DRNS shall apply the uplink TPC step size in the new configuration.]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Delete* IEs or *DL CCTrCH To Delete* IEs, the DRNS shall remove this CCTrCH in the new configuration, and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message corresponding *UL DPCH to be Deleted* IEs and *DL DPCH to be Deleted* IEs.]

SSDT Activation/Deactivation:

- [FDD If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE", then in the new configuration the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE in *RL Information* IE, and the *SSDT Cell Identity Length* IE in *UL DPCH Information* IE.]
- [FDD If the *RL Information* IE includes the *Qth Parameter* IE and the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS shall use the *Qth Parameter* IE, if Qth signalling is supported, when SSDT is activated in the new configuration.]
- [FDD If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

DL Power Control:

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and power balancing is active, DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, at the CFN in the RADIO LINK RECONFIGURATION COMMIT message, according to subclause 8.3.15, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

DSCH Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.

The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added DSCH.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.

[FDD - If the *DSCHs To Add* IE includes the *Enhanced DSCH PC* IE, the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]

- [FDD the SSDT Cell Identity for EDSCHPC IE in the RL Information IE, if the SSDT Cell Identity IE is not included in the RL Information IE or]
- [FDD the SSDT Cell Identity IE in the RL Information IE, if both the SSDT Cell Identity IE and the SSDT Cell Identity for EDSCHPC are included in the RL Information IE.]

[FDD - together with the SSDT Cell Identity Length IE in UL DPCH Information IE, and Enhanced DSCH PC IE, in the new configuration.]

[FDD - If the enhanced DSCH power control is activated and the TFCI PC Mode 2 is supported, the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Modify* IE, then the DRNS shall treat them each as follows:

- The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified DSCH.
- [FDD If the DSCH To Modify IE includes any DSCH Info IEs, then the DRNS shall treat them each as follows:]
 - [FDD If the *DSCH Info* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DRNS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
 - [FDD If the *DSCH Info* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
 - [FDD If the DSCH Info IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]
- [FDD If the *DSCH To Modify* IE includes the *PDSCH RL ID* IE, then the DRNS shall use it as the new DSCH RL identifier.]
- [FDD If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]
- [FDD If the *DSCH To Modify* IE includes the *Transport Format Combination Set* IE, then the DRNS shall use it as the new Transport Format Combination Set associated with the DSCH.]
- [TDD If the *DSCHs To Modify* IE includes the *CCTrCH ID* IE, then the DRNS shall map the DSCH onto the referenced DL CCTrCH.]
- [TDD If the *DSCHs To Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
- [TDD If the *DSCHs To Modify* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD If the *DSCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]
- [FDD If the *DSCHs To Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC Active in the UE", the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]
 - [FDD the SSDT Cell Identity for EDSCHPC IE in RL Information IE, if the SSDT Cell Identity IE is not included in the RL Information IE or]
 - [FDD the SSDT Cell Identity IE in the RL Information IE, if both the SSDT Cell Identity IE and the SSDT Cell Identity for EDSCHPC are included in the RL Information IE.]
 - [FDD together with the SSDT Cell Identity Length IE in UL DPCH Information IE, and Enhanced DSCH PC IE, in the new configuration.]
- [FDD If the *DSCHs To Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

[FDD - If the enhanced DSCH power control is activated and the TFCI PC Mode 2 is supported, the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DSCHs To Delete* IE requesting the deletion of all DSCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

[3.84 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

If the requested modifications are allowed by the DRNS and the DRNS has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message.

The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK RECONFIGURATION READY message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].

[TDD USCH Addition/Modification/Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify*, *USCH To Add* or *USCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then, the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of USCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added USCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify* IE, then the DRNS shall treat them each as follows:]

- [TDD If the USCH To Modify IE includes any of the Allocation/Retention Priority IE, Scheduling Priority Indicator IE or TrCH Source Statistics Descriptor IE, the DNRS shall use them to update the set of USCH Priority classes.]
- [TDD If the *USCH To Modify* IE includes any of the *CCTrCH ID* IE, *Transport Format Set* IE, *BLER* IE or *RB Info* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD If the *USCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified USCH.]

RL Information:

[FDD- If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the DRNS shall adjust the timing of the radio link accordingly in the new configuration.]

HS-DSCH Information Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs and if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNS shall use this information to add/modify/delete the indicated HS-DSCH resources to/from this radio link If the *HS-PDSCH RL ID* IE does not indicate a radio link in the DRNS, then the DRNS shall update the configuration of the HS-DSCH according to the received *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs. The DRNS shall store the latest HS-DSCH configuration until the UE context is deleted.

[FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

[TDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH parameters corresponding to the HS-DSCH. The DRNC shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD - *HS-SCCH Specific Information Response*] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR*] IEs in the RADIO LINK RECONFIGURATION READY message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH Information to Delete* IE requesting the deletion of all HS-DSCH resources for the UE Context, then the DRNC shall release the HS-DSCH-RNTI allocated to the UE Context, if there was one.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE and there is a HS-DSCH existing in the UE Context after reconfiguration, then:

- If the indicated HS-PDSCH RL ID is in the DRNS and there was no HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If the indicated HS-PDSCH RL ID is in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new HS-DSCH-RNTI to the UE Context, release the old HS-DSCH-RNTI and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If the indicated HS-PDSCH RL ID is not in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall release this HS-DSCH-RNTI.
- If a reset of the MAC-hs is not required the DRNC shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.
- [FDD If the indicated HS-PDSCH RL ID is in the DRNS and is different from previous one, then the DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related MAC-d flows.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE , the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

[FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use the indicated power offset in the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated MAC-hs window size value in the new configuration.

The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for each MAC-d flow, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].

If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *T1* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated T1 value in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE in the *HS-DSCH Information To Modify* IE or the *HS-DSCH Information To Add* IE, then the DRNS shall use the indicated Discard Timer value in the new configuration.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD -If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION READY message, if the Uplink Timing Advance Control parameters have been changed.]

[TDD] DSCH RNTI Addition/Deletion

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the PDSCH RL ID IE, then the DRNS shall use it as the new RL identifier for PDSCH and PUSCH..]

- [TDD If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE
 Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the DSCH-RNTI IE in the
 RADIO LINK RECONFIGURATION READY message.]
- [TDD If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the DSCH-RNTI IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a DSCHs to Delete IE and/or a USCHs to Delete IE which results in the deletion of all DSCH and USCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

[FDD - Phase Reference Handling]:

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Support Of Dedicated Pilots For Channel Estimation* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for DCH or DSCH.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for HS-DSCH.]

[FDD – If Primary CPICH usage for channel estimation information has been reconfigured, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If Secondary CPICH information for channel estimation has been reconfigured, the DRNC shall include the *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *Phase Reference Update Indicator* IE, DRNC shall modify the channel estimation information according to [10] subclause 4.3.2.1 and set the value(s) in *Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message accordingly.

General

If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IE in the *DSCHs To Modify* IE, *DSCHs To Add* IE, [TDD - *USCHs To Modify* IE, *USCHs To Add* IE], *HS-DSCH Information To Modify* IE, *HS-DSCH Information To Add* IE or in the *RL Specific DCH Information* IEs, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the DCHs in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the DRNS, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the combined Radio Links

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE respectively. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL -except during compressed mode, when the dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH*

Minimum DL TX Power. The DRNS shall not transmit with a higher power than indicated by the appropriate Maximum DL TX Power IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the [3.84Mcps TDD - *DL Time Slot ISCP Info* IE][1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

8.3.4.3 Unsuccessful Operation

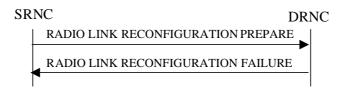


Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the DRNS cannot reserve the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, it shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure for each failed radio link in a *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported;
- Number of DL Codes not Supported;
- Number of UL Codes not Supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;
- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];
- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- RL Timing Adjustment not Supported.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.4.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE" and SSDT is not active in the current configuration, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure if the *UL DPCH Information* IE does not include the *SSDT Cell Identity Length* IE. The DRNC shall then respond with a RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the *DSCHs To Add* IE includes the *Enhanced DSCH PC* IE and the *DSCH To Modify* IE include the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", then the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

[FDD - If both the DSCHs To Add IE and the DSCH To Modify IE include Enhanced DSCH PC IE, then the DRNS shall ignore the Enhanced DSCH PC IE in the DSCH To Add IE.]

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IEs, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *RL Information* IE includes more than one *DL Reference Power* IEs, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value 'Power Balancing status not compatible".]

[FDD - If the RADIO LINK RECONFIGURATIO PREPARE message does not include the *Split Type* IE but includes *TFCI Signalling Mode* IE set to "Split", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE but the *Split type* IE is set to "Logical", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Split Type* IE set to the value "Hard" and the *Length Of TFCI2* IE set to the value "1", "2", "5", "8", "9" or "10", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Split Type* IE but includes the *Length of TFCI2* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be

established, the DRNC shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

8.3.5 Synchronised Radio Link Reconfiguration Commit

8.3.5.1 General

This procedure is used to order the DRNS to switch to the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

8.3.5.2 Successful Operation



Figure 12: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The DRNS shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.

[FDD - If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the DRNS.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1 and in [32], subclause 5.3.1..

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CFN* IE. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

8.3.5.3 Abnormal Conditions

If a new transport bearer is required for the new configuration and it is not available at the requested CFN, the DRNS shall initiate the Radio Link Failure procedure.

8.3.6 Synchronised Radio Link Reconfiguration Cancellation

8.3.6.1 General

This procedure is used to order the DRNS to release the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

8.3.6.2 Successful Operation



Figure 13: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

Upon receipt of the RADIO LINK RECONFIGURATION CANCEL message from the SRNC, the DRNS shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.6.3 Abnormal Conditions

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8.3.7 Unsynchronised Radio Link Reconfiguration

8.3.7.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

The procedure is used when there is no need to synchronise the time of the switching from the old to the new radio link configuration in the cells used by the UE-UTRAN connection within the DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.7.2 Successful Operation

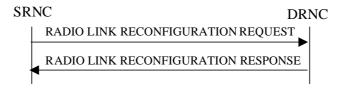


Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the DRNC.

Upon receipt, the DRNS shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IEs, then the DRNS shall treat them as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the DCHs To Modify IE includes the UL FP Mode IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *DCH Specific Info* IE includes the *Traffic Class* IE, the DRNC should use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.
- [FDD If the *DRAC Control* IE is present and set to "requested" in *DCHs to Modify* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link supported by a cell in which DRAC is active.]
- [TDD If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH in the new configuration.]
- [TDD If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Add* IEs, then the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCHs To Add* IE includes multiple DCH Specific Info IEs then the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if all of them can be in the new configuration.
- [FDD For each DCH which does not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.
- The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [FDD If the *DRAC Control* IE is set to "requested" in *DCH Specific Info* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link supported by a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the

SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the DCH Specific Info IE in the DCH Information IE does not include the Guaranteed DL Rate IE, the DRNS shall not limit the user rate of the uplink of the DCH.

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Delete* IEs, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

[FDD - Physical Channel Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the DRNS shall apply the new TFCS in the Uplink of the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD If the *DL DPCH Information* IE includes the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE for the DL, the DRNS shall apply the new TFCI Signalling Mode in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, and if the *Downlink Compressed Mode Method* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to 'SF/2', the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, without changing any of the DL Channelisation Codes or DL Scrambling Codes, indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Modify* IEs or /*DL CCTrCH Information To Modify* IEes which contain a *TFCS* IE, the DRNS shall apply the included *TFCS* IE as the new value(s) to the referenced CCTrCH. Otherwise the DRNS shall continue to apply the previous value(s) specified for this CCTrCH.]

[1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the DRNS shall apply this value as the new configuration and use it for the UL inner loop power control according [12] and [22].]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Delete* IEs or *DL CCTrCH Information To Delete* IEs, the DRNS shall not include the referenced CCTrCH in the new configuration.]

DL Power Control:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE and the power balancing is active, the DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power Information* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message, if the Uplink Timing Advance Control parameters have been changed.]

[FDD – Phase Reference Handling]:

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for DCH or DSCH.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for HS-DSCH.]

General:

If the requested modifications are allowed by the DRNS, and if the DRNS has successfully allocated the required resources and changed to the new configuration, the DRNC shall respond to the SRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE only for one of the DCHs in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the DRNS, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message for only one of the combined Radio Links.

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall

include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the $Maximum\ DL\ TX\ Power\ IE$ and $Minimum\ DL\ TX\ Power\ IE$ in the RADIO LINK RECONFIGURATION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the $Maximum\ DL\ TX\ Power\ IE$ or lower than indicated by the $Minimum\ DL\ TX\ Power\ IE$ on any DL DPCH of the RL except during compressed mode, when the dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate Minimum DL TX Power IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

8.3.7.3 Unsuccessful Operation

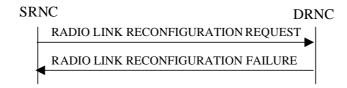


Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the DRNS cannot allocate the necessary resources for all the new DCHs in a set of co-ordinated DCHs requested to be added, it shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available:
- Requested Configuration not Supported;

- CM not Supported.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.7.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed, and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Individual DL Reference Power Information* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Common DL Reference Power* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

8.3.8 Physical Channel Reconfiguration

8.3.8.1 General

The Physical Channel Reconfiguration procedure is used by the DRNS to request the SRNC to reconfigure one of the configured physical channels.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS shall not initiate the Physical Channel Reconfiguration procedure if a Prepared Reconfiguration exists as defined in subclause 3.1, or if a Synchronised Radio Link Reconfiguration procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing for the relevant UE context.

8.3.8.2 Successful Operation

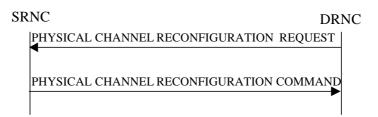


Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

When the DRNC detects the need to modify one of its physical channels, it shall send a PHYSICAL CHANNEL RECONFIGURATION REQUEST to the SRNC.

The PHYSICAL CHANNEL RECONFIGURATION REQUEST message contains the new value(s) of the physical channel parameter(s) of the radio link for which the DRNC is requesting the reconfiguration.

[FDD- If compressed mode is prepared or active and at least one of the downlink compressed mode methods is "SF/2", the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message indicating for each DL Channelisation Code whether the alternative scrambling code will be used or not if the downlink compressed mode methods "SF/2" is activated.]

[TDD - The SRNC shall apply the new values for any of [3.84Mcps TDD - *UL Code Information IE, Midamble Shift And Burst Type IE,*], [1.28Mcps TDD - *UL Code Information LCR IE, Midamble Shift LCR IE*], TDD DPCH Offset IE, Repetition Period IE, Repetition Length IE, or TFCI presence IE included in the *UL DPCH Information IE* within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous values specified for this DPCH shall still apply.]

[TDD - The SRNC shall apply the new values for any of [3.84Mcps TDD - *DL Code Information* IE, *Midamble Shift And Burst Type* IE,] [1.28Mcps TDD - *DL Code Information LCR* IE, *Midamble Shift LCR* IE,] *TDD DPCH Offset* IE Repetition Period IE, Repetition Length IE, or TFCI presence IE included in the DL DPCH Information IE within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous_values specified for this DPCH shall still apply.]

[3.84 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information* IE the SRNC shall apply the values of the *Midamble Shift And Burst Type* IE for each HS-PDSCH timeslot.]

[1.28 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information LCR* IE the SRNC shall apply the values of the *Midamble Shift LCR* IE for each HS-PDSCH timeslot.]

Upon receipt of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC shall decide an appropriate execution time for the change. The SRNC shall respond with a PHYSICAL CHANNEL RECONFIGURATION COMMAND message to the DRNC that includes the *CFN* IE indicating the execution time.

At the CFN, the DRNS shall switch to the new configuration that has been requested, and release the resources related to the old physical channel configuration.

8.3.8.3 Unsuccessful Operation

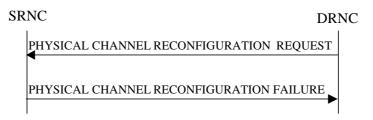


Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

If the SRNC cannot accept the reconfiguration request it shall send the PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC, including the reasonfor the failure in the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Reconfiguration not Allowed.

8.3.8.4 Abnormal Conditions

While waiting for the PHYSICAL CHANNEL RECONFIGURATION COMMAND message, if the DRNC receives any of the RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST, or RADIO LINK DELETION REQUEST messages, the DRNC shall abort the Physical Channel Reconfiguration procedure. These messages thus override the DRNC request for physical channel reconfiguration.

When the SRNC receives a PHYSICAL CHANNEL RECONFIGURATION REQUEST message while a Synchronised Radio Link Reconfiguration procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing, the SRNC shall ignore the request message and assume that receipt of any of the messages RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST or RADIO LINK DELETION REQUEST by the DRNC has terminated the Physical Channel Reconfiguration procedure. In this case the SRNC shall not send a PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC.

8.3.9 Radio Link Failure

8.3.9.1 General

This procedure is started by the DRNS when one or more Radio Links [FDD - or Radio Link Sets][TDD - or CCTrCHs within a Radio Link] are no longer available.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.9.2 Successful Operation

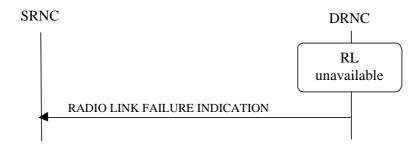


Figure 18: Radio Link Failure procedure, Successful Operation

When the DRNC detects that one or more Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs within a Radio Link] are no longer available, it shall send the RADIO LINK FAILURE INDICATION message to the SRNC. The message indicates the failed Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs] with the most appropriate cause values defined in the *Cause* IE. If the failure concerns one or more individual Radio Links the DRNC shall include the affected Radio Link(s) using the *RL Information* IE. [FDD - If the failure concerns one or more Radio Link Set(s) the DRNC shall include the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD - If the failure concerns only the failure of one or more CCTrCHs within in a radio link the DRNC shall include the affected CCTrCHs using the *CCTrCH ID* IE].

When the RL Failure procedure is used to notify loss of UL synchronisation of a [FDD - Radio Link Set] [TDD - Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause* IE set to "Synchronisation Failure" when indicated by the UL synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2.

[FDD - When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s)/Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause Value* IE set to "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link(s)/Radio Link Set(s) from the UE Context, or remove the UE Context itself.]

In the other cases the Radio Link Failure procedure is used to indicate that one or more Radio Link(s) [FDD - or Radio Link Set(s)] are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link from the UE Context, or remove the UE Context itself. When applicable, the allocation retention priorities associated with the transport channels shall be used by the DRNS to prioritise which Radio Links to indicate as unavailable to the SRNC.

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure;
- Invalid CM Settings.

Transport Layer Causes:

- Transport Resources Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- O&M Intervention.

8.3.9.3 Abnormal Conditions

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8.3.10 Radio Link Restoration

8.3.10.1 General

This procedure is used to notify establishment and re-establishment of UL synchronisation of one or more [FDD - RL Set(s)] [TDD - Radio Links or CCTrCH(s) in a Radio Link] on the Uu interface.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.10.2 Successful Operation



Figure 19: Radio Link Restoration procedure, Successful Operation

The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when and as specified by the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2. [FDD - The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set].

[TDD - If the re-established UL Uu synchronisation concerns one or more individual Radio Links the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected Radio Link(s).] [TDD - If the re-established synchronisation concerns one or more individual CCTrCHs within a radio link the DRNS shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected CCTrCHs.] [FDD - If the re-established UL Uu synchronisation concerns one or more Radio Link Sets the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Set Information* IE to indicate the affected Radio Link Set(s).]

8.3.10.3 Abnormal Conditions

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8.3.11 Dedicated Measurement Initiation

8.3.11.1 General

This procedure is used by an SRNS to request the initiation of dedicated measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.11.2 Successful Operation

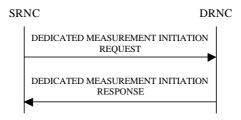


Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNC shall initiate the requested dedicated measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message.

If the Dedicated Measurement Object Type is indicated as being "RL"jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Links.

[FDD - If the Dedicated Measurement Object Type is indicated as being "RLS" jn the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the UE Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the UE Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the existing and future Radio Link Sets within the UE Context.]

[TDD - If the *DPCH ID* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE or *HS-SICH ID* IE is provided within the RL Information the measurement request shall apply for one existing DPCH per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this DPCH.]

[TDD - If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality", the DRNS shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this UE Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the DRNS shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

Report characteristics

The *Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the DRNS shall report the measurement result immediately in the DEDICATED MEASUREMENT INITIATION RESPONSE message. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Periodic" and if the *CFN* IE is not provided, the DRNS shall immediately and periodically initiate the Dedicated Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *CFN* IE is provided, the DRNS shall initiate a Dedicated Measurement Reporting procedure for this measurement at the CFN indicated in the *CFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Event A", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the thresholdfor the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises morethan the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, DRNS shall not initiate the next C event reporting for the same measurement during the subsequenttime specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this falls occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event, the DRNS shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On –Demand", the DRNS is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object(s) for which a measurement is defined exists any more, the DRNS shall terminate the measurement locally without reporting this to the SRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the DRNS shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

 F_n is the updated filtered measurement result

 F_{n-1} is the old filtered measurement result

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

 $a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present, a shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_I when the first measurement result from the physical layer measurement is received.

Response message

If the DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message.

In the case in which the Report Characteristics IE is set to "On Demand":

- The DRNC shall include the measurement result in the *Dedicated Measurement Value* IE within the DEDICATED MEASUREMENT INITIATION RESPONSE message.
- If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT INITIATION RESPONSE message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].
- [TDD If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the DPCH ID of that DPCH in the *DPCH ID* IE.]
- [TDD If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

8.3.11.3 Unsuccessful Operation

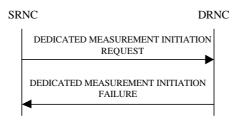


Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated for one of the RL/RLS, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

If the DEDICATED MEASUREMENT INITIATION REQUEST message includes the *Partial Reporting Indicator* IE, the DRNS shall, if partial reporting is supported, separate the unsuccessful measurement initiations from the successful measurement initiations. For the successful measurement initiations on a RL or an RLS, the DRNS shall include the *Successful RL Information* IE or the *Successful RL Set Information* IE for the concerned RL or RLS if the Report *Characteristics* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message was set to 'On-Demand'. For the unsuccessful measurement initiations, the DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Measurement not Supported For The Object
- Measurement Temporarily not Available

Miscellaneous Causes:

- Control Processing Overload
- HW Failure

8.3.11.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the DRNS shall reject the Dedicated Measurement Initiation procedure using the DEDICATED MEASUREMENT INITIATION FAILURE message.

| Dedicated | Report Characteristics Type | | | | | | | | |
|------------------------------|-----------------------------|----------|------------|------------|------------|------------|------------|------------|--------------------|
| Measurement Type | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| SIR | Х | Х | Х | Х | Х | Х | Х | Х | |
| SIR Error | Х | Х | Х | Х | Х | Х | Х | Х | |
| Transmitted Code Power | Х | Х | Х | Х | Х | Х | Х | Х | |
| RSCP | Х | Х | Х | Х | Х | Х | Х | Х | |
| Rx Timing Deviation | Х | Х | Х | Х | | | Х | Х | |
| Round Trip Time | Х | Х | Х | Х | Х | Х | Х | Х | |
| Rx Timing Deviation LCR | Х | Х | Х | Х | | | Х | Х | |
| HS-SICH Reception Quality | Х | Х | Х | Х | | | Х | Х | |

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [11] or [14] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall reject the Dedicated Measurement Initiation procedure.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the DRNS shall reject the Dedicated Measurement Initiation procedure, and the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message.

8.3.12 Dedicated Measurement Reporting

8.3.12.1 General

This procedure is used by the DRNS to report the results of the successfully initiated measurements requested by the SRNS with the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation



Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the DRNS shall initiate the Dedicated Measurement Reporting procedure. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the DRNC may include dedicated measurement values in the *Dedicated Measurement Value Information* IE for multiple objects in the DEDICATED MEASUREMENT REPORT message.

The *Measurement ID* IE shall be set to the Measurement ID provided by the SRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [23] and [24], the Measurement not available shall be reported in the *Dedicated Measurement Value Information* IE in the DEDICATED

MEASUREMENT REPORT message, otherwise the DRNC shall include the *Dedicated Measurement Value* IE within the *Dedicated Measurement Value Information* IE.

If the CFN Reporting Indicator when initiating the measurement with the Dedicated Measurement Initiation procedure was set to "FN Reporting Required", the DRNC shall include the *CFN* IE in the DEDICATED MEASUREMENT REPORT message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

[TDD - If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT REPORT message shall include the DPCH ID of that DPCH in the *DPCH ID* IE.]

[TDD - If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

8.3.12.3 Abnormal Conditions

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8.3.13 Dedicated Measurement Termination

8.3.13.1 General

This procedure is used by the SRNS to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.13.2 Successful Operation



Figure 23: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

8.3.13.3 Abnormal Conditions

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8.3.14 Dedicated Measurement Failure

8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. When partial reporting is allowed and supported, this procedure shall be used to report that measurement for one or more RL/RLS can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Failure procedure at any time after establishing a Radio Link.

8.3.14.2 Successful Operation



Figure 24: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested dedicated measurement can no longer be reported. The DRNC has locally terminated the indicated measurement. The DRNC shall include in the DEDICATED MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

The DRNS shall include *Unsuccessful RL Information* IE or the *Unsuccessful RL Set Information* IE for the concerned RL or RLS if partial reporting is allowed and it is supported. The DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Control [FDD]

8.3.15.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more radio links for one UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Control procedure may be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated in this DRNS the deletion of the last Radio Link for this UE context, the Downlink Power Control procedure shall not be initiated.

8.3.15.2 Successful Operation



Figure 25: Downlink Power Control procedure, Successful Operation

The Downlink Power Control procedure is initiated by the SRNC sending a DL POWER CONTROL REQUEST message to the DRNC.

The Power Adjustment Type IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Common". As long as the Power Balancing Adjustment Type of the UE Context is set to "Common", the DRNS shall perform the power adjustment (see below) for all existing and future radio links for the UE Context and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Individual". The DRNS shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Power per RL. If the Power Balancing Adjustment Type of the UE Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "None" and the DRNS shall suspend on going power adjustments for all radio links for the UE Ccontext.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the DRNS shall activate inner loop DL power control for all radio links for the UE Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the DRNS shall deactivate inner loop DL power control for all radio links for the UE Context according to ref. [10].

Power Adjustment

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$$\sum P_{bal} = (1 - r)(P_{ref} + P_{P-CPICH} - P_{init})$$
 with an accuracy of ± 0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, P_{ref} is the value of the *DL Reference Power* IE, $P_{P-CPICH}$ is the power used on the primary CPICH, P_{init} is the code power of the last slot of the previous adjustment period and r is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, P_{init} shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the DRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.15.3 Abnormal Conditions

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8.3.16 Compressed Mode Command [FDD]

8.3.16.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the DRNS for one UE-UTRAN connection. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.16.2 Successful Operation



Figure 26: Compressed Mode Command procedure, Successful Operation

The procedure is initiated by the SRNC sending a COMPRESSED MODE COMMAND message to the DRNC.

Upon receipt of the COMPRESSED MODE COMMAND message from the SRNC and at the CFN indicated in the *CM Configuration Change CFN* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

8.3.16.3 Abnormal Conditions

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8.3.17 Downlink Power Timeslot Control [TDD]

8.3.17.1 General

The purpose of this procedure is to provide the DRNS with updated DL Timeslot ISCP values to use when deciding the DL TX Power for each timeslot.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Timeslot Control procedure can be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS, the Downlink Power Timeslot Control procedure shall not be initiated.

8.3.17.2 Successful Operation



Figure 26A: Downlink Power Timeslot Control procedure, Successful Operation

The Downlink Power Timeslot Control procedure is initiated by the SRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the DRNC.

Upon receipt of the DL POWER TIMESLOT CONTROL REQUEST message, the DRNS shall use the included [3.84Mcps TDD - *DL Timeslot ISCP Info IE*] [1.28Mcps TDD - *DL Timeslot ISCP Info LCR* IE] value when deciding the DL TX Power for each timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link in which the interference is low, and increase the DL TX power in those timeslots in which the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP* IE is present, the DRNS should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

8.3.17.3 Abnormal Conditions

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8.3.18 Radio Link Pre-emption

8.3.18.1 General

This procedure is started by the DRNS when resources need to be freed.

This procedure shall use the signalling bearer connection for the UE Context associated with the RL to be pre-empted.

The DRNS may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.18.2 Successful Operation

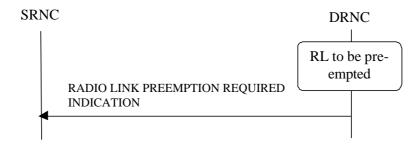


Figure 26B: Radio Link Pre-emption procedure, Successful Operation

When DRNC detects that one or more Radio Link(s) should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the SRNC. If all Radio Links for a UE Context should be pre-empted, the *RL Information* IE shallnot be included in the message. If one or several but not all Radio Link(s) should be pre-empted for an UE Context, the Radio Link(s) that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted, should be deleted by the SRNC.

When only the HS-DSCH traffic on a Radio Link should be pre-empted, the DRNC shall indicate the HS-DSCH MAC-d flow(s) that should be pre-empted by including the *HS-DSCH MAC-d Flow Specific Information* IE in the RADIO LINK PREEMPTION REQUIRED INDICATION message.

8.3.18.3 Abnormal Conditions

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8.3.19 Radio Link Congestion

8.3.19.1 General

This procedure is started by the DRNS when resource congestion is detected and the rate of one or more DCHs, corresponding to one or more radio links, is preferred to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL resource congestion situation, affecting these radio links. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Congestion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.19.2 Successful Operation



Figure 26C: Radio Link Congestion procedure, Successful Operation

Start of an UL/DL Resource Congestion Situation

When the DRNC detects the start of a UL/DL resource congestion situation and prefers the rate of one or more DCHs for one or more Radio Link(s) to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced. For each DCH within the RL with UL congestion, the DRNC shall indicate the desired maximum UL data rate with the *Allowed UL Rate* IE in the *Allowed Rate Information* IE. For each DCH within the RL with DL congestion, the DRNC shall indicate the desired maximum DL data rate with the *Allowed DL Rate* IE in the *Allowed Rate Information* IE.

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the *Congestion Cause* IE and the indicated *Allowed DL Rate* IE and/or *Allowed UL Rate* IE for a DCH.

Change of UL/DL Resource Congestion Situation

The DRNC shall indicate any change of the UL/DL resource congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate(s) of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that for at least one DCH the new allowed rate is lower than the previously indicated allowed rate for that DCH, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for the DCH(s).

End of UL/DL Resource Congestion Situation

The end of an UL resource congestion situation, affecting a specific RL, shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerned RL. The end of a DL resource congestion situation, affecting a specific RL, shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerned RL.

8.3.19.3 Abnormal Conditions

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8.3.20 Radio Link Activation

8.3.20.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

8.3.20.2 Successful Operation



Figure 26D: Radio Link Activation procedure

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the SRNC to the DRNC. This procedure shall use the signalling bearer connection for the relevant UE Context.

Upon receipt, the DRNS shall for each concerned RL:

- if the Delayed Activation Update IE indicates "Activate":
 - if the Activation Type IE equals "Unsynchronised":
 - [FDD- start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4].]
 - [TDD- start transmission on the new RL immediately as specified in [4].]
 - if the *Activation Type* IE equals "Synchronised":
 - [FDD- start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD- start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [4].]
 - [FDD- the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see 8.3.7).]
 - [TDD- the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.23.3).]
 - [FDD- if the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]
 - [FDD- if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]
- if the Delayed Activation Update IE indicates "Deactivate":
 - stop DL transmission immediately if the Deactivation Type IE equals "Unsynchronised", or at the CFN indicated by the Deactivation CFN IE if the Deactivation Type IE equals "Synchronised".

8.3.20.3 Abnormal Conditions

[FDD- If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the DRNC shall initiate the ERROR INDICATION procedure.]

8.3.21 Radio Link Parameter Update

8.3.21.1 General

The Radio Link Parameter Update procedure is executed by the DRNS to update parameters related to HS-DSCH on a radio link for a UE-UTRAN connection or to update phase reference on a list of the radio links.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.21.2 Successful Operation



Figure 26E: Radio Link Parameter Update Indication, Sucessful Operation

The Radio Link Parameter Update procedure is initiated by the DRNS by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the SRNC.

HS-DSCH related Parameter(s) Updating:

If RADIO LINK PARAMETER UPDATE INDICATION message is used to update the parameters related to HS-DSCH, it contains suggested value(s) of the HS-DSCH related parameter(s) that should be reconfigured on the radio link.

If the DRNS needs to update HS-DSCH related parameters, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD - HS-DSCH FDD Update Information IE] [TDD - HS-DSCH TDD Update Information IE].

If the DRNS needs to allocate new HS-SCCH Codes, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator* IE.

[FDD - If the DRNS needs to update the CQI Feecback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *CQI Feecback Cycle k* IE, *CQI Repetition Factor* IE, *ACK-NACK Repetition Factor* IE, *CQI Power Offset* IE, *ACK Power Offset* IE and/or *NACK Power Offset* IE.]

[TDD - If the DRNS needs to update the TDD ACK-NACK Power Offset the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including TDD ACK-NACK Power Offset IE.]

[FDD – Phase Reference Handling]:

[FDD – If DRNS needs to update phase reference for the channel estimation for one or several Radio Links, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *Phase Reference Update Information* IE for the concerned RL(s).]

8.3.21.3 Abnormal Conditions

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8.4 Common Transport Channel Procedures

8.4.1 Common Transport Channel Resources Initialisation

8.4.1.1 General

The Common Transport Channel Resources Initialisation procedure is used by the SRNC for the initialisation of the Common Transport Channel user plane towards the DRNC and/or for the initialisation of the Common Transport Channel resources in the DRNC to be used by a UE.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.1.2 Successful Operation

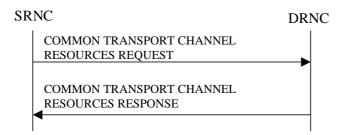


Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation

The SRNC initiates the procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES REQUEST message to the DRNC.

If the value of the *Transport Bearer Request Indicator* IE is set to "Bearer Requested", the DRNC shall store the received *Transport Bearer ID* IE. The DRNC may use the *Transport Layer Adress* and *Binding ID* IEs included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message received from the SRNC when establishing a transport bearer for the common transport channel. In addition, the DRNC shall include its own *Binding ID* IE and *Transport Layer Address* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the value of the *Transport Bearer Request Indicator* IE is set to" Bearer not Requested", the DRNC shall use the transport bearer indicated by the *Transport Bearer ID* IE.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall allocate a C-RNTI for the indicated cell and include the *C-RNTI* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell indicated by the *C-ID* IE and the corresponding *C-ID* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the *C-ID* IE is not included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell where the UE is located and the corresponding *C-ID* IE. The DRNC shall include the *FACH Scheduling Priority* IE and *FACH Initial Window Size* IE in the *FACH Flow Control Information* IE of the *FACH Info for UE Selected S-CCPCH* IE for each priority class that the DRNC has determined shall be used. The DRNC may include several *MAC-c/sh SDU Length* IEs for each priority class.

If the DRNS has any RACH, [FDD - CPCH,] and/or FACH resources previously allocated for the UE in another cell than the cell in which resources are currently being allocated, the DRNS shall release the previously allocated RACH, [FDD - CPCH,] and/or FACH resources.

If the DRNS has successfully reserved the required resources, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *Permanent NAS UE Identity* IE is present in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNS shall store the information for the considered UE Context for the lifetime of the UE Context.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can reserve resources on a common transport channel in this cell or not.

8.4.1.3 Unsuccessful Operation

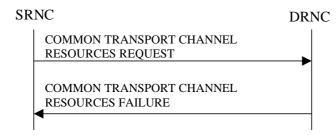


Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

If the *Transport Bearer Request Indicator* IE is set to "Bearer Requested" and the DRNC is not able to provide a Transport Bearer, the DRNC shall reject the procedure and respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including thereason for the failure in the *Cause* IE.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available for the considered UE Context, the DRNC shall reject the procedure and send the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Common Transport Channel Type not Supported;
- Cell reserved for operator use.

Transport Layer Causes:

- Transport Resource Unavailable.

8.4.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the DRNC shall reject the procedure using the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

8.4.2 Common Transport Channel Resources Release

8.4.2.1 General

This procedure is used by the SRNC to request release of Common Transport Channel Resources for a given UE in the DRNS. The SRNC uses this procedure either to release the UE Context from the DRNC (and thus both the D-RNTI and the C-RNTI) or to release only the C-RNTI.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.2.2 Successful Operation



Figure 29: Common Transport Channel Resources Release procedure, Successful Operation

The SRNC initiates the Common Transport Channel Resources Release procedure by sending the COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST message to the DRNC. Upon receipt of the message the DRNC shall release the UE Context identified by the D-RNTI and all its related RACH, [FDD - CPCH,] and/or FACH resources, unless the UE is using dedicated resources (DCH, [TDD - USCH,] and/or DSCH) in the DRNS in which case the DRNC shall release only the C-RNTI and all its related RACH, [FDD - CPCH,] and/or FACH resources allocated for the UE.

8.4.2.3 Abnormal Conditions

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8.5 Global Procedures

8.5.1 Error Indication

8.5.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in a received message, provided they cannot be reported by an appropriate response message.

This procedure shall use the signalling bearer mode specified below.

8.5.1.2 Successful Operation

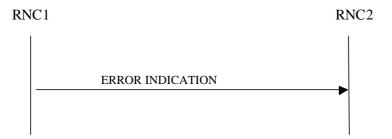


Figure 30: Error Indication procedure, Successful Operation

When the conditions defined in clause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node. This message shall use the same mode of the signalling bearer and the same signalling bearer connection (if connection oriented) as the message that triggers the procedure.

When the ERROR INDICATION message is sent from a DRNC to an SRNC using connectionless mode of the signalling bearer, the *S-RNTI* IE shall be included in the message if the UE Context addressed by the *D-RNTI* IE which was received in the message triggering the Error Indication procedure exists. When the ERROR INDICATION message is sent from an SRNC to a DRNC using connectionless mode of the signalling bearer, the *D-RNTI* IE shall be included in the message if available.

When a message using connectionless mode of the signalling bearer is received in the DRNC and there is no UE Context in the DRNC as indicated by the *D-RNTI* IE, the DRNC shall include the D-RNTI from the received message in the *D-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

When a message using connectionless mode of the signalling bearer is received in the SRNC and there is no UE in the SRNC as indicated by the *S-RNTI* IE, the SRNC shall include the S-RNTI from the received message in the *S-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE, or both the *Cause* IE and the *Criticality Diagnostics* IE to indicate the reason for the error indication.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

8.5.1.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the error indication procedure as specified in section 8.5.1.2.

8.5.1.3 Abnormal Conditions

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8.5.2 Common Measurement Initiation

8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC_1 and the RNC to which the request is sent is referred to as RNC_2 .

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.2.2 Successful Operation

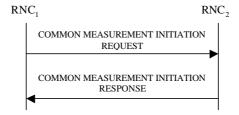


Figure 30A: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC₁ to the RNC₂.

Upon receipt, the RNC₂ shall initiate the requested measurement according to the parameters given in the request.

Unless specified below, the meaning of the parameters are given in other specifications.

[TDD- If the [3.84 Mcps TDD - *Time Slot* IE] [1.28 Mcps - *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

Common measurement type

If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then:

- The RNC₂ shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by the *Reference Cell Identifier* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-ID*) in the *Neighbouring Cell Measurement Information* IE.
- [3.84 Mcps TDD The RNC₂ shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neighbouring TDD Cell Measurement Information* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type* IE in the *Neighbouring TDD Cell Measurement Information* IE, If *Time Slot* IE and *Midamble Shift And Burst Type* IE are not available in the *Neighbouring TDD Cell Measurement Information* IE, the RNC₂ may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

If the *Common Measurement Type* IE is set to "load", the RNC₂ shall initiate measurements of uplink and downlink load on the measured object identified by the *Reference Cell Identifier* IE. If either uplink or downlink load satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", "transmitted carrier power", "received total wide band power", or "UL timeslot ISCP" the RNC₂ shall initiate measurements on the measured object identified by the *Reference Cell Identifier* IE.

If the Common Measurement Type IE is set to "RT load", the RNC $_2$ shall initiate measurements of uplink and downlink estimated share of RT (Real Time) traffic of the load of the measured object. If either uplink or downlink RT load satisfies the requested report characteristics, the RNC $_2$ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC₂ shall initiate measurements of uplink and downlink NRT (Non Real Time) load situation on the measured object. If either uplink or downlink NRT load satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink measurements.

Report characteristics

The Report Characteristics IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the RNC₂ shall report the result of the requested measurement immediately in the COMMON MEASUREMENT INITIATION RESPONSE message. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Periodic" and if the *SFN* IE is not provided, the RNC₂ shall immediately and periodically initiate a Common Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *SFN* IE is provided, the RNC₂ shall initiate a Common Measurement Reporting procedure for this measurement at the SFN indicated in the *SFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Event A", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, the RNC₂ shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this fall occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event,, the RNC₂ shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the RNC₂shall initiate the Common Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the RNC₂ shall initiate the Common Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold* 2 IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the RNC₂ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold* 2 IE is not present, the RNC₂ shall use the value of the *Measurement Threshold* 1 IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the RNC₂ shall initiate the Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the RNC₂ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the RNC₂ shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the RNC₂ shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the first measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE. Following the first measurement report, the RNC₂ shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

- 1. If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":
 - If the $T_{UTRAN-GPS}$ Change Limit IE is included in the $T_{UTRAN-GPS}$ Measurement Threshold Information IE, the RNC₂ shall calculate the change of $T_{UTRAN-GPS}$ value (F_n) each time a new measurement result is received after point C in the measurement model [25]. The RNC₂ shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GPS}$ Change Limit IE. The change of $T_{UTRAN-GPS}$ value (F_n) is calculated according to the following:

$$F_n=0$$
 for $n=0$

$$F_n = (M_n - M_{n-1}) \bmod 37158912000000 - ((SFN_n - SFN_{n-1}) \bmod 4096) *10*3.84*10^3 *16 + F_{n-1} \qquad for \ n > 0$$

 F_n is the change of the $T_{UTRAN-GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_{n-1} is the previous measurement result received after point C in the measurement model [25], measured at SFN_{n-1}.

 M_I is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

 M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the Predicted T_{UTRAN-GPS} Deviation Limit IE is included in the T_{UTRAN-GPS} Measurement Threshold Information IE, the RNC₂ shall update the P_n and F each time a new measurement result is received after point C in the measurement model [25]. The RNC₂ shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the Predicted T_{UTRAN-GPS} Deviation Limit IE. The P_n and F_n are calculated according to the following:

```
P_n = b for n = 0
```

```
P_n = ((a/16)*((SFN_n - SFN_{n-1}) \bmod 4096)/100 + ((SFN_n - SFN_{n-1}) \bmod 4096)*10*3.84*10^3*16 + P_{n-1}) \bmod 37158912000000 \ for \ n>0
```

```
F_n = min((M_n - P_n) \mod 37158912000000, (P_n - M_n) \mod 37158912000000) for n > 0
```

 P_n is the predicted $T_{UTRAN-GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported T_{UTRAN-GPS} Drift Rate value.

b is the last reported $T_{UTRAN-GPS}$ value.

 F_n is the deviation of the last measurement result from the predicted $T_{\rm UTRAN\text{-}GPS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25, measured at SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GPS}$ Drift Rate is determined by the RNS₂ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

- 2. If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference":
 - If the SFN-SFN Change Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the RNC₂ shall calculate the change of SFN-SFN value (F_n) each time a new measurement result is received after point C in the measurement model [25]. The RNC₂ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the SFN-SFN Change Limit IE. The change of the SFN-SFN value is calculated according to the following:

```
F_n = 0 for n = 0
```

```
[FDD - F_n = (M_n - a) \mod 614400 \text{ for } n > 0]
```

[TDD -
$$F_n = (M_n - a) \mod 40960$$
 for $n > 0$]

 F_n is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the Predicted SFN-SFN Deviation Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the RNC₂ shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The RNC₂ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the Predicted SFN-SFN Deviation Limit IE. The P_n and F_n are calculated according to the following:

```
\begin{split} P_n &= b \;\; for \, n = 0 \\ &[\text{FDD -} P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \; mod \; 4096)/100 + \; P_{n-1} \;) \; mod \; 614400 \quad for \;\; n > 0] \\ &[\text{FDD -} F_n = \min((M_n - P_n) \; mod \; 614400, \; (P_n - M_n) \; mod \; 614400) \quad for \; n > 0] \\ &[\text{TDD -} P_n = ((a/16) * (15*(SFN_n - SFN_{n-1}) mod \; 4096 + (TS_n - TS_{n-1}))/1500 + P_{n-1} \;) \; mod \; 40960 \; for \;\; n > 0] \\ &[\text{TDD -} F_n = \min((M_n - P_n) \; mod \; 40960, \; (P_n - M_n) \; mod \; 40960) \quad for \; n > 0] \end{split}
```

 P_n is the predicted SFN-SFN value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN Drift Rate value.

b is the last reported SFN-SFN value.

 F_n is the deviation of the last measurement result from the predicted SFN-SFN value (P_n) when n measurements has been received after first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at the [TDD - the Time Slot TS_n of] the Frame SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the RNS₂ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

If the *Report Characteristics* IE is not set to "On Demand", the RNC₂ is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more, the RNC₂ shall terminate the measurement locally without reporting this to RNC₁.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the RNC₂ shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Common measurement accuracy

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC₂ shall use the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE included in the *Report Characteristics* IE according to the following:.

- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class A", then the concerned RNC₂ shall perform the measurement with the highest supported accuracy withinthe accuracy classes A, B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates the "Class B", then the concerned RNC₂ shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class C", then the concerned RNC₂ shall perform the measurements with the highest supported accuracy according to class C.
- If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the concerned RNC₂ shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

 F_{n-1} is the old filtered measurement result

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

 $a = 1/2^{(k/2)}$ -, where k is the parameter received in the *Measurement Filter Coefficient IE*. If the *Measurement Filter Coefficient IE* is not present, a shall be set to 1 (no filtering).

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Response message

If the RNC_2 was able to initiate the measurement requested by RNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message.

In the case in which the Report Characteristics IE is set to "On-Demand" or "On Modification":

- The COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. It shall also include the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to 'UTRAN GPS Timing of Cell Frame for UE positioning'.
- If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and if the *SFN Reporting Indicator* IE is set to "FN Reporting Required", then the RNC₂ shall include the *SFN* IE in the COMMON MEASUREMENT INITIATION RESPONSE message,. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.
- If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then the RNC₂ shall report all the available measurements in the Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE, and the RNC₂ shall report the neighbouring cells with no measurement result available in the Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE. For all available measurement results, the RNC₂ shall include in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE, if available.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the Report Characteristics IE is set to "On Demand" or "On Modification", the RNC₂ shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.5.2.2.1 Successful Operation for lur-g

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC₁ to the BSS₂ or from the BSS₁ to the RNC₂/BSS₂.

Upon receipt, the RNC₂ /BSS₂ shall initiate the requested measurement according to the parameters given in the request.

Common measurement type on Iur-g

If the Common Measurement Type IE is set to "load", the RNC_2/BSS_2 shall initiate measurements and report results as described in section 8.5.2.2.

If the Common Measurement Type IE is set to "RT load", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

If the Common Measurement Type IE is set to "NRT load Information", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

Report characteristics on Iur-g

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. This IE is used as described in section 8.5.2.2.

Response message for Iur-g

If the RNC₂/BSS₂ was able to initiate the measurement requested by RNC₁/BSS₁ it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On-Demand", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.

8.5.2.3 Unsuccessful Operation

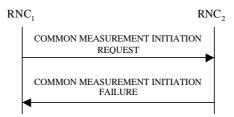


Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the RNC₂ shall send a COMMON MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the COMMON MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Measurement not supported for the object.
- Measurement Temporarily not Available

8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the SFN-SFN Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the RNC $_2$ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frame for UE positioning", but the $T_{UTRAN-GPS}$ Measurement Minimum Accuracy Class IE in the Common Measurement Accuracy IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type indicated in the COMMON

MEASUREMENT INITIATION REQUEST message the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

Table 5: Allowed Common Measurement Type and Report Characteristics Type Combinations

| Common | Report characteristics type | | | | | | | | |
|--|-----------------------------|----------|------------|------------|------------|------------|------------|------------|--------------------|
| measurement type | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| Received total wide band power | X | X | X | Х | X | Х | X | Х | |
| Transmitted Carrier Power | X | X | X | X | X | X | X | X | |
| UL Timeslot ISCP | X | X | Χ | Χ | Χ | Χ | Χ | Χ | |
| Load | X | X | Χ | Χ | Χ | Χ | Χ | Χ | |
| UTRAN GPS Timing of Cell Frames for UE Positioning | X | X | | | | | | | X |
| SFN-SFN Observed Time Difference | X | X | | | | | | | X |
| RT load | X | X | Χ | Χ | Χ | Χ | Χ | Χ | |
| NRT load Information | X | X | Х | Х | X | Х | X | Х | |

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD - *Time Slot IE*] [1.28Mcps TDD – *Time Slot LCR* IE] is not provided in the COMMON MEASUREMENT INITIATION REQUEST message the RNS₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the RNS₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

8.5.2.4.1 Abnormal Conditions for lur-g

The measurements which can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X".

Table 6: Allowed Common measurement type on lur and lur-g interfaces

| Common Measurement Type | Interface | | | |
|--------------------------------|-----------|-------|--|--|
| | lur | lur-g | | |
| Received total wide band power | X | | | |
| Transmitted Carrier Power | X | | | |
| UL Timeslot ISCP | X | | | |
| Load | X | X | | |
| UTRAN GPS Timing of Cell | X | | | |
| Frames for LCS | | | | |
| SFN-SFN Observed Time | X | | | |
| Difference | | | | |
| RT load | X | X | | |
| NRT load Information | X | X | | |

If the RNC₂ receives from the BSS₁ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the RNC₂ shall reject the Common Measurement Initiation procedure.

If the BSS_2 receives from the BSS_1 / RNC₁ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the BSS_2 shall reject the Common Measurement Initiation procedure.

If the RNC₂ receives from the BSS₁ a COMMON MEASUREMENT INITIATION REQUEST message in which the SFN reporting indicator IE is set to "FN Reporting Required", the RNC₂ shall ignore that IE.

If the BSS₂ receives from the BSS₁ / RNC₁ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the BSS₂ shall ignore that IE.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table in section 8.5.2.4 marked with "X". For not allowed combinations, the RNC_2/BSS_2 shall reject the Common Measurement Initiation procedure.

8.5.3 Common Measurement Reporting

8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.3.2 Successful Operation



Figure 30C: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the RNC₂ shall initiate the Common Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref. [23] and [24]), the *Common Measurement Value Information* IE shall indicate Measurement not Available.

For measurements included in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE, the RNC₂ shall include the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE if available.

If the Common Measurement Type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC₂ shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.5.3.2.1 Successful Operation for lur-g

If the requested measurement reporting criteria are met, the RNC₂/BSS₂ shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement ID* IE shall be set to the Common Measurement ID provided by RNC₁/BSS₁ when initiating the measurement with the Common Measurement Initiation procedure.

If the Common measurement type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was "SFN-SFN Observed Time Difference", then RNC₂ shall include in the COMMON MEASUREMENT REPORT all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and shall include the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the Common measurement type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was not set to "SFN-SFN Observed Time Difference" and the SFN Reporting Indicator when initiating the measurement was set to "FN Reporting Required", the RNC₂ shall include the *SFN* IE in the COMMON MEASUREMENT REPORT message. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

8.5.3.3 Abnormal Conditions

-

8.5.4 Common Measurement Termination

8.5.4.1 General

This procedure is used by an RNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.4.2 Successful Operation



Figure 30D: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon receipt, RNC_2 shall terminate reporting of common measurements corresponding to the received *Measurement ID* IF.

8.5.4.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Common Measurement Termination procedure as specified in section 8.5.4.2.

8.5.4.3 Abnormal Conditions

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8.5.5 Common Measurement Failure

8.5.5.1 General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.5.2 Successful Operation



Figure 30E: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from RNC₂ to RNC₁ to inform the RNC₁ that a previously requested measurement can no longer be reported. RNC₂ has locally terminated the indicated measurement. The RNC₂ shall include in the DEDICATED MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

8.5.5.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Common Measurement Failure procedure as specified in section 8.5.5.2.

8.5.5.3 Abnormal Conditions

-

8.5.6 Information Exchange Initiation

8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.6.2 Successful Operation



Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC₁ to RNC₂.

Upon receipt, the RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

The Information Report Characteristics IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the RNC $_2$ shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the RNC₂ shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On Modification", the RNC₂ shall report the requested information immediately if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the RNC₂ shall initiate the Information Reporting procedure when the requested information becomes available. The RNC₂ shall then initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC₂ shall initiate the Information Reporting procedure when any change in the parameters occurs.
- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC₂ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.
- If the Information Type Item IE is set to "GPS Information" and the GPS Information Item IE includes "GPS Ionospheric Model", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the Information Type Item IE is set to "GPS Information" and the GPS Information Item IE includes "GPS UTC Model", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN_t parameter.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the Information Type IE is set to "Cell Capacity Class", the RNC₂ shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink cell capacity information.
- If any of the above *Information Type* IEs becomes temporarily unavailable, the RNC₂ shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the RNC₂ shall initiate the Information Reporting procedure for this specific Information.

Response message:

If the RNC₂ is able to determine the information requested by the RNC₁, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE if the data are available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

8.5.6.2.1 Successful Operation for lur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from BSS_1 to BSS_2/RNC_2 or by RNC_1 to BSS_2 .

Upon receipt, the BSS₂/RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics on Iur-g:

If the *Information Type Item* IE is set to "Cell Capacity Class", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

8.5.6.3 Unsuccessful Operation

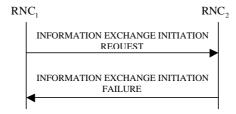


Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation

If the requested Information Type received in the *Information Type* IE indicates a type of information that RNC₂ cannot provide, the RNC₂ shall reject the Information Exchange Initiation procedure.

If the requested information provision cannot be accessed, the RNC₂ shall reject the procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The message shall include the *Information Exchange ID* IE set to the same value that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Information temporarily not available.
- Information Provision not supported for the object.

8.5.6.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC₂ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The allowed combinations of the Information type and Information Report Characteristics type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Information Exchange Initiation procedure using the INFORMATION EXCHANGE INITIATION FAILURE message.

Table 6a: Allowed Information Type and Information Report Characteristics type combinations

| Type | Information Report Characteristics Type | | | | | |
|---|---|----------|-----------------|--|--|--|
| | On Demand | Periodic | On Modification | | | |
| UTRAN Access Point Position with Altitude Information | Х | | | | | |
| UTRAN Access Point Position | Х | | | | | |
| IPDL Parameters | Х | Х | Х | | | |
| GPS Information | Χ | X | X | | | |
| DGPS Corrections | Χ | Χ | X | | | |
| GPS RX Pos | X | | | | | |
| SFN-SFN Measurement Reference Point Position | X | | | | | |
| Cell Capacity Class | Х | • | Х | | | |

8.5.6.4.1 Abnormal Conditions for lur-g

The information types that can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X". For information types that are not applicable on the Iur-g interface, the BSS shall reject the Information Exchange Initiation procedure.

Table 7: Allowed Information types on lur and lur-g interfaces

| Information Type | Inte | erface |
|-----------------------------|------|--------|
| | lur | lur-g |
| UTRAN Access Point Position | X | |
| with Altitude Information | | |
| UTRAN Access Point Position | X | |
| IPDL Parameters | X | |
| DGPS Corrections | X | |
| GPS Information | Х | |
| GPS RX Pos | X | |
| SFN-SFN Measurement | X | |
| Reference Point Position | | |
| Cell Capacity Class | X | Χ |

8.5.7 Information Reporting

8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.7.2 Successful Operation



Figure 30H: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the RNC₂ shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

The Requested Data Value IE shall include at least one IE containing the data to be reported.

8.5.7.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Information Reporting procedure as specified in section 8.5.7.2.

8.5.7.3 Abnormal Conditions

-

8.5.8 Information Exchange Termination

8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.8.2 Successful Operation



Figure 30I: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon receipt, the RNC₂ shall terminate the information exchange corresponding to the *Information Exchange ID* IE provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

8.5.8.2.1 Successful Operation for lur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Information Exchange Termination procedure as specified in section 8.5.8.2.

8.5.8.3 Abnormal Conditions

-

8.5.9 Information Exchange Failure

8.5.9.1 General

This procedure is used by a RNC to notify another that the information exchange it previously requested using the Information Exchange Initiation can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.9.2 Successful Operation



Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC₂ to the RNC₁, to inform the RNC₁ that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The RNC₂ shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure, and the RNC₂ shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

8.5.9.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

8.5.10 Reset

8.5.10.1 General

The purpose of the reset procedure is to align the resources in RNC_1 and RNC_2 in the event of an abnormal failure.

The procedure uses connectionless signalling.

8.5.10.2 Successful Operation

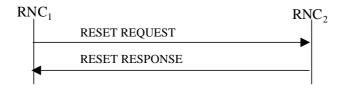


Figure 30K: Reset procedure, Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the RNC₁ to the RNC₂.

If the *Reset Indicator* IE is set to "Context", then:

- For all indicated UE Contexts identified by the *S-RNTI* IE, the RNC₂ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.
- For all indicated UE Contexts identified by the *D-RNTI* IE, the RNC₂ in the role of SRNC, shall remove the information related to the RNC₁ for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

If the *Reset Indicator* IE is set to "Context Group", then:

- For all indicated UE Context Groups identified by the *S-RNTI Group* IE, the RNC₂ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.

If the Reset Indicator IE is set to "All Contexts", then the RNC₂ shall:

- In the role of DRNC, remove all the UE Contexts for which the RNC $_1$ is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the RNC $_2$ shall take actions according to Annex D.2.
- In the role of SRNC, remove the information related to the RNC_1 for all the UE Contexts and all the radio resources allocated for these UE Contexts.

For all the removed UE Contexts and for all the UE Contexts for which the RNC₂ has removed information related to the RNC₁, the RNC₂ shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the RNC₂ shall return the RESET RESPONSE message to the RNC₁.

8.5.10.3 Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

9 Elements for RNSAP Communication

9.1 Message Functional Definition and Content

9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, in which the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

| М | IEs marked as Mandatory (M) shall always be included in the message. |
|---|---|
| 0 | IEs marked as Optional (O) may or may not be included in the message. |
| С | IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE |
| | shall not be included. |

In the case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. Each group may be also repeated within one message. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

9.1.2.2 Criticality

Each information element or Group of information elements may have criticality information applied to it. Following cases are possible:

| _ | No criticality information is applied explicitly. |
|--------|---|
| YES | Criticality information is applied. 'YES' is usable only for non-repeatable information elements. |
| GLOBAL | The information element and all its repetitions together have one common criticality information. |
| | 'GLOBAL' is usable only for repeatable information elements. |
| EACH | Each repetition of the information element has its own criticality information. It is not allowed to assign |
| | different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements. |

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3 RADIO LINK SETUP REQUEST

9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|-----------------|-------|------------------------------------|----------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | 10,000 |
| SRNC-ID | M | | RNC-ID 9.2.1.50 | | YES | reject |
| S-RNTI | М | | 9.2.1.53 | | YES | reject |
| D-RNTI | 0 | | 9.2.1.24 | | YES | reject |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL DPCH Information | <u> </u> | 1 | 0.2.1.2 | | YES | reject |
| >UL Scrambling Code | М | , | 9.2.2.53 | | - | 10,000 |
| >Min UL Channelisation | M | | 9.2.2.25 | | _ | |
| Code Length | " | | 0.2.2.20 | | | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.24 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | For the UL. | _ | |
| >TFCS | M | | TFCS for the UL 9.2.1.63 | TOT THE CL. | _ | |
| >UL DPCCH Slot Format | М | | 9.2.2.52 | | _ | |
| >Uplink SIR Target | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Diversity mode | M | | 9.2.2.8 | | _ | |
| >SSDT Cell Identity Length | 0 | | 9.2.2.41 | | _ | |
| >S Field Length | 0 | | 9.2.2.36 | | _ | |
| >DPC Mode | 0 | | 9.2.2.12A | | YES | reject |
| DL DPCH Information | | 1 | | | YES | reject |
| >TFCS | М | | TFCS for the DL. 9.2.1.63 | | _ | , |
| >DL DPCH Slot Format | М | | 9.2.2.9 | | _ | |
| >Number of DL | M | | 9.2.2.26A | | _ | |
| Channelisation Codes | " | | 0.2.2.207 | | | |
| >TFCI Signalling Mode | М | | 9.2.2.46 | | _ | |
| >TFCI Presence | C- | | 9.2.1.55 | | _ | |
| >Multiplexing Position | SlotFormat M | | 9.2.2.26 | | | |
| >Power Offset Information | IVI | 1 | 9.2.2.20 | | | |
| >>PO1 | М | | Power Offset 9.2.2.30 | Power offset for the TFCI bits. | | |
| >>P02 | М | | Power Offset 9.2.2.30 | Power offset for the TPC bits. | - | |
| >>PO3 | M | | Power Offset 9.2.2.30 | Power offset for the pilot bits. | _ | |
| >FDD TPC Downlink Step Size | М | | 9.2.2.16 | | _ | |
| >Limited Power Increase | M | ļ | 9.2.2.21A | | _ | |
| >Inner Loop DL PC Status | M | ļ | 9.2.2.21a | | _ | |
| >Split Type | 0 | | 9.2.2.39a | | YES | reject |
| >Length of TFCI2 | 0 | | 9.2.2.21C | | YES | reject |
| DCH Information | М | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DSCH Information | 0 | | DSCH FDD Information | | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|--------------------------|---------------------------------|--|--------------------------|-------------|-------------------------|
| | | | 9.2.2.13A | | | |
| RL Information | | 1 <maxn oofRLs></maxn | | | EACH | notify |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >C-ID | М | | 9.2.1.6 | | _ | |
| >First RLS Indicator | М | | 9.2.2.16A | | _ | |
| >Frame Offset | М | | 9.2.1.30 | | _ | |
| >Chip Offset | M | | 9.2.2.1 | | _ | |
| >Propagation Delay | 0 | | 9.2.2.33 | | _ | |
| >Diversity Control Field | C – NotFirstRL | | 9.2.1.20 | | _ | |
| >Initial DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Primary CPICH Ec/No | 0 | | 9.2.2.32 | | _ | |
| >SSDT Cell Identity | 0 | | 9.2.2.40 | | _ | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | - | |
| >SSDT Cell Identity for EDSCHPC | C- EDSCHPC | | 9.2.2.40A | | YES | ignore |
| >Enhanced Primary CPICH Ec/No | 0 | | 9.2.2.131 | | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >Qth Parameter | 0 | | 9.2.2.34a | | YES | ignore |
| Transmission Gap Pattern Sequence Information | 0 | | 9.2.2.47A | | YES | reject |
| Active Pattern Sequence Information | 0 | | 9.2.2.A | | YES | reject |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| DL Power Balancing Information | 0 | | 9.2.2.10A | | YES | ignore |
| HS-DSCH Information | 0 | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-PDSCH RL ID | C – InfoHSDS CH | | RL ID 9.2.1.49 | | YES | reject |
| UE Support Of Dedicated Pilots For Channel Estimation | 0 | | 9.2.2.50A | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | 0 | | 9.2.2.50B | | YES | ignore |

| Condition | Explanation |
|----------------|--|
| CodeLen | The IE shall be present if <i>Min UL Channelisation Code length</i> IE equals to 4 |
| SlotFormat | The IE shall be present if the <i>DL DPCH Slot Format</i> IE is equal to any of the values from 12 to 16. |
| NotFirstRL | The IE shall be present if the RL is not the first one in the RL Information IE. |
| Diversity mode | The IE shall be present if <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> IE is not equal to "none". |
| EDSCHPC | This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Information IE. |
| InfoHSDSCH | This IE shall be present if HS-DSCH Information IE is present. |

| Range bound | Explanation |
|-------------|-----------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |

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9.1.3.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|-----------------------------|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | , |
| SRNC-ID | М | | RNC-ID 9.2.1.50 | | YES | reject |
| S-RNTI | M | | 9.2.1.53 | | YES | reject |
| D-RNTI | 0 | | 9.2.1.24 | | YES | reject |
| UL Physical Channel Information | | 1 | | | YES | reject |
| >Maximum Number of Timeslots | М | | 9.2.3.3A | For the UL | _ | |
| >Minimum Spreading Factor | M | | 9.2.3.4A | For the UL | _ | |
| >Maximum Number of UL Physical Channels per Timeslot | М | | 9.2.3.3B | | _ | |
| >Support of 8PSK | 0 | | 9.2.3.7H | Applicable to 1.28Mcps TDD only | YES | ignore |
| DL Physical Channel | | 1 | | | YES | reject |
| Information | <u>]</u> | | | <u> </u> | | |
| >Maximum Number of Timeslots | М | | 9.2.3.3A | For the DL | - | |
| >Minimum Spreading Factor | M | | 9.2.3.4A | For the DL | _ | |
| >Maximum Number of DL Physical Channels | М | | 9.2.3.3C | | _ | |
| >Maximum Number of DL Physical Channels per Timeslot | 0 | | 9.2.3.3D | | YES | ignore |
| >Support of 8PSK | 0 | | 9.2.3.7H | Applicable to 1.28Mcps TDD only | YES | ignore |
| Allowed Queuing Time | 0 | | 9.2.1.2 | , | YES | reject |
| UL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH and USCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | M | | 9.2.1.63 | For the UL. | _ | |
| >TFCI Coding | М | | 9.2.3.11 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | | _ | |
| >TDD TPC Uplink Step Size | O | | 9.2.3.10a | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | reject |
| DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH and DSCH | EACH | notify |
| >CCTrCH ID | M | 3/ | 9.2.3.2 | | _ | |
| >TFCS | M | | 9.2.1.63 | For the DL. | _ | |
| >TFCI Coding | M | | 9.2.3.11 | i Oi tile DL. | _ | |
| >Puncture Limit | M | | 9.2.3.11 | | _ | |
| >TDD TPC Downlink Step | M | | 9.2.3.10 | | | |
| Size >TPC CCTrCH List | | 0 <maxno CCTrCHs></maxno | | List of uplink CCTrCH which provide TPC | _ | |
| >>TPC CCTrCH ID | М | | CCTrCH ID 9.2.3.2 | | _ | |
| DCH Information | 0 | | DCH TDD | | YES | reject |

| | | | Information | | | |
|---------------------------------------|-----------------------|----|--|--|-----|--------|
| | | | 9.2.3.2A | | | |
| DSCH Information | 0 | | DSCH TDD Information | | YES | reject |
| | | | 9.2.3.3a | | | |
| USCH Information | 0 | 1 | 9.2.3.15 | | YES | reject |
| RL Information | 1.4 | 1 | 0.0.4.40 | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >C-ID | M | | 9.2.1.6 | | | |
| >Frame Offset | M | | 9.2.1.30 | | | |
| >Special Burst Scheduling | M | | 9.2.3.7D | | | |
| >Primary CCPCH RSCP | 0 | | 9.2.3.5 | | _ | |
| >DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Applicable to 3.84Mcps TDD only | - | |
| >DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | reject |
| >TSTD Support Indicator | 0 | | 9.2.3.13F | Applicable to 1.28Mcps TDD only | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>Uplink Synchronisation Step Size | М | | 9.2.3.13J | | _ | |
| >>Uplink Synchronisation Frequency | М | | 9.2.3.131 | | - | |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| HS-DSCH Information | 0 | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-PDSCH RL ID | C - InfoHSDS CH | | RL ID 9.2.1.49 | | YES | reject |
| PDSCH-RL-ID | 0 | | RL ID 9.2.1.49 | | YES | ignore |

| Condition | Explanation |
|------------|--|
| InfoHSDSCH | This IE shall be present if HS-DSCH Information IE is present. |

| Range bound | Explanation |
|----------------|--------------------------------------|
| maxnoofCCTrCHs | Maximum number of CCTrCH for one UE. |

9.1.4 RADIO LINK SETUP RESPONSE

9.1.4.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|----------------------------------|--|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | , |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| RL Information Response | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >RL Set ID | M | | 9.2.2.35 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | - | |
| >Received Total Wide Band Power | М | | 9.2.2.35A | | - | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | _ | |
| >CHOICE Diversity | М | | | | _ | |
| Indication | 1 | | | | | |
| >>Combining | | | | | _ | |
| >>>RL ID | М | | 9.2.1.49 | Reference RL ID for the combining | - | |
| >>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>Non Combining or First RL | | | | | - | |
| >>>DCH Information Response | М | | 9.2.1.16A | | - | |
| >SSDT Support Indicator | M | | 9.2.2.43 | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | - | |
| >Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | _ | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Primary Scrambling Code | 0 | | 9.2.1.45 | | _ | |
| >UL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | _ | |
| >DL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | _ | |
| >Primary CPICH Power | М | | 9.2.1.44 | | _ | |
| >DSCH Information Response | Ö | | DSCH FDD Information Response | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--|--------------------------|-------------|-------------------------|
| | | | 9.2.2.13B | | | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >PC Preamble | M | | 9.2.2.27a | | - | |
| >SRB Delay | M | | 9.2.2.39A | | _ | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >HS-DSCH Information Response | 0 | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| Uplink SIR Target | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |

| Range bound | Explanation |
|-------------|-----------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |

9.1.4.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|---|-----------------------------|--|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| RL Information Response | | 01 | | Mandatory for 3.84Mcps TDD , not applicable to 1.28Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info | М | | 9.2.3.13D | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR | | | |
| | | | 9.2.1.69 | | | |
| >Minimum Uplink SIR | М | | Uplink SIR | | _ | |
| | | | 9.2.1.69 | | | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nt in ref. [7] | _ | |
| >Cell Parameter ID | 0 | | 9.2.1.8 | | _ | |
| >Sync Case | 0 | | 9.2.1.54 | | _ | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | _ | |
| >SCTD Indicator | 0 | | 9.2.1.78 | | _ | |
| >PCCPCH Power | M | | 9.2.1.43 | | _ | |
| >Timing Advance Applied | M | | 9.2.3.12A | | _ | |
| >Alpha Value | М | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | М | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info TDD | 0 | | 9.2.3.7B | | _ | |
| >UL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | | |
| >>UL DPCH Information | | 01 | | | YES | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | | | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | М | | 9.2.3.13C | | | |
| >>Uplink SIR Target CCTrCH | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| >DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH Information | | 01 | | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|---|----------|---|---------------------|---------------------------|-------------|---------------|
| | | | and Reference | Description | | Criticality |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot | M | | 9.2.3.2C | | | |
| Information | 141 | | 0.2.0.20 | | | |
| >>CCTrCH Maximum DL | 0 | | DL Power | Maximum | YES | ignore |
| TX Power | | | 9.2.1.21A | allowed | _ | 9 |
| | | | | power on | | |
| | | | | DPCH | | |
| >>CCTrCH Minimum DL | 0 | | DL Power | Minimum | YES | ignore |
| TX Power | | | 9.2.1.21A | allowed | | |
| | | | | power on | | |
| | | | | DPCH | | |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCH Information | | 0 | | | GLOBAL | ignore |
| Response | | <maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<> | | | | |
| | | DSCHs> | | | | |
| >>DSCH ID | M | | 9.2.1.26A | | _ | |
| >>DSCH Flow Control | M | | 9.2.1.26B | | _ | |
| Information | | - | 0040 | | | |
| >>Binding ID | 0 | - | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format | M | | 9.2.3.13 | | _ | |
| Management | | | | | 0.05 | |
| >USCH Information | | 0 | | | GLOBAL | ignore |
| Response | | <maxnoof USCHs></maxnoof | | | | |
| >>USCH ID | M | USCHS> | 9.2.3.14 | | | |
| >>Binding ID | O | | 9.2.3.14 | | _ | |
| >>Transport Layer | 0 | | 9.2.1.62 | | | |
| Address | | | 9.2.1.02 | | _ | |
| >>Transport Format | М | | 9.2.3.13 | | _ | |
| Management | IVI | | 9.2.0.10 | | | |
| >Neighbouring UMTS Cell | 0 | | 9.2.1.41A | | _ | |
| Information | | | 0.2 | | | |
| >Neighbouring GSM Cell | 0 | | 9.2.1.41C | | _ | |
| Information | | | | | | |
| >Time Slot for SCH | C-Case1 | | Time Slot | | YES | ignore |
| | | | 9.2.1.56 | | | Ö |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >HS-DSCH Information | 0 | | HS-DSCH | | YES | ignore |
| Response | | | TDD | | | |
| | | | Information | | | |
| | | | Response | | | |
| | | | 9.2.3.3ab | | | |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Time Slot for SCH | C-Case1 | | Time Slot | | <u>YES</u> | <u>ignore</u> |
| 11 II 1 OID T | | | 9.2.1.56 | | \/50 | |
| Uplink SIR Target | M | | Uplink SIR | | YES | ignore |
| Criticality Diagnostics | | | 9.2.1.69 | | VEC | ianara |
| Criticality Diagnostics RL Information Response | 0 | 0.4 | 9.2.1.13 | Mondotor | YES | ignore |
| LCR | | 01 | | Mandatory for 1.28Mcps | YES | ignore |
| LON | | | | TDD, not | | |
| | | | | applicable to | | |
| | | | | 1.28Mcps | | |
| | | | | TDD | | |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >URA Information | M | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point | Ō | † | 9.2.1.70A | † | | |
| >UTRAIN ACCESS POINT | U | | 9.2.1.70A | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|--|-----------------------------|-------------------------------------|-------------|-------------------------|
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.13H | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nt in ref. [7] | - | |
| >Cell Parameter ID | 0 | | 9.2.1.8 | | _ | |
| >SCTD Indicator | 0 | | 9.2.1.78 | | _ | |
| >PCCPCH Power | М | | 9.2.1.43 | | _ | |
| >Alpha Value | М | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | М | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | М | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info TDD LCR | 0 | | 9.2.3.7F | | _ | |
| >UL CCTrCH Information LCR | | 0 <maxno ofCCTrCH sLCR></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>UL DPCH Information LCR | | 01 | | | YES | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | | _ | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information LCR | М | | 9.2.3.13G | | - | |
| >>Uplink SIR Target CCTrCH | 0 | | Uplink SIR 9.2.1.69 | 5 5011 | YES | ignore |
| >DL CCTrCH Information LCR | | 0 <maxno ofCCTrCH sLCR></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>DL DPCH Information LCR | | 01 | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | 1 | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information LCR | М | | 9.2.3.2E | | | |
| >>>TSTD Indicator | M | | 9.2.3.13E | | - | |
| >DCH Information Response | 0 | 1 | 9.2.1.16A | | YES | ignore |
| >DSCH Information Response LCR | | 0 <maxnoof DSCHsLC R></maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>DSCH Flow Control Information | M | | 9.2.1.26B | | - | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | _ | |
| >USCH Information Response LCR | | 0 <maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxnoof<> | | | GLOBAL | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---------------|--|--------------------------|-------------|-------------------------|
| | | USCHsLC R> | | | | |
| >>USCH ID | M | | 9.2.3.14 | | _ | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | - | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | - | |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >HS-DSCH Information Response LCR | Ō | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >Uplink Timing Advance Control LCR | M | | 9.2.3.13K | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| DSCH RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |

| Condition | Explanation |
|-----------|---|
| Case2 | The IE shall be present if Sync Case IE is equal to "Case2". |
| Case1 | This IE shall be present if Sync Case IE is equal to "Case1". |

| Range bound | Explanation |
|-------------------|---|
| maxnoofDSCHs | Maximum number of DSCHs for one UE for 3.84Mcps TDD. |
| maxnoofUSCHs | Maximum number of USCHs for one UE for 3.84Mcps TDD. |
| maxnoofCCTrCHs | Maximum number of CCTrCH for one UE for 3.84Mcps TDD. |
| maxnoofDSCHsLCR | Maximum number of DSCHs for one UE for 1.28Mcps TDD. |
| maxnoofUSCHsLCR | Maximum number of USCHs for one UE for 1.28Mcps TDD. |
| maxnoofCCTrCHsLCR | Maximum number of CCTrCH for one UE for 1.28Mcps TDD. |

9.1.5 RADIO LINK SETUP FAILURE

9.1.5.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|--|---|--|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | TOJOOL |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.12 | | YES | |
| | | | 9.2.1.11 | | | ignore |
| CHOICE Cause Level >General | M | | | | YES | ignore |
| | M | | 0045 | | _ | |
| >>Cause | IVI | | 9.2.1.5 | | _ | |
| >RL Specific >>Unsuccessful RL | | | | | | |
| | | 1 <maxno< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxno<> | | | EACH | ignore |
| Information Response | | ofRLs> | | | | |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| >>Successful RL Information Response | | 0 <maxno ofRLs-1></maxno | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>URA Information | 0 | | 9.2.1.70B | | _ | |
| >>>SAI | М | | 9.2.1.52 | | _ | |
| >>>Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >>>UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >>>Received Total Wide Band Power | М | | 9.2.2.35A | | _ | |
| >>>Secondary CCPCH | 0 | | 9.2.2.37B | | _ | |
| >>>DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | - | |
| >>>CHOICE Diversity Indication | М | | | | _ | |
| >>>Combining | | | | | _ | |
| >>>>RL ID | М | | 9.2.1.49 | Reference RL ID for the combining | _ | |
| >>>>DCH | 0 | | 9.2.1.16A | | YES | ignore |
| Information Response | <u> </u> | | <u> </u> | | | |
| >>>Non Combining or First RL | | | | | _ | |
| >>>>DCH Information Response | М | | 9.2.1.16A | | _ | |
| >>>SSDT Support Indicator | М | | 9.2.2.43 | | - | |
| >>>Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | _ | |
| >>>Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >>>Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Primary CPICH | М | | 9.2.1.44 | | _ | |
| minary or ion | 1 141 | 1 | J.2.1.TT | 1 | _ | L |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|--|-------------------------------------|-------------|-------------------------|
| Power | | | | | | |
| >>>Primary Scrambling Code | 0 | | 9.2.1.45 | | _ | |
| >>>UL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | _ | |
| >>>DL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | _ | |
| >>>DSCH Information Response | 0 | | DSCH FDD Information Response 9.2.2.13B | | YES | ignore |
| >>>Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >>>Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >>>PC Preamble | М | | 9.2.2.27a | | _ | |
| >>>SRB Delay | М | | 9.2.2.39A | | - | |
| >>>Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >>>DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >>>HS-DSCH Information Response | 0 | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >>>TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >>>HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >>>Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| >>DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| >>HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| Uplink SIR Target | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|-------------|-----------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |

9.1.5.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | ı | |
| >>Cause | M | | 9.2.1.5 | | - | |
| >RL Specific | | | | | _ | |
| >>Unsuccessful RL Information Response | | 1 | | | YES | ignore |
| >>>RL ID | М | | 9.2.1.49 | | _ | |
| >>>Cause | М | | 9.2.1.5 | | _ | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.6 RADIO LINK ADDITION REQUEST

9.1.6.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|--|------------------------|--|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Uplink SIR Target | М | | Uplink SIR 9.2.1.69 | | YES | reject |
| RL Information | | 1 <maxn oofRLs- 1></maxn | | | EACH | notify |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >Frame Offset | M | | 9.2.1.30 | | _ | |
| >Chip Offset | M | | 9.2.2.1 | | _ | |
| >Diversity Control Field | M | | 9.2.1.20 | | _ | |
| >Primary CPICH Ec/No | 0 | | 9.2.2.32 | | _ | |
| >SSDT Cell Identity | 0 | | 9.2.2.40 | | | |
| >Transmit Diversity Indicator | 0 | | 9.2.2.48 | | _ | |
| >DL Reference Power | 0 | | DL Power 9.2.1.21 A | Power on DPCH | YES | ignore |
| >Enhanced Primary CPICH Ec/No | 0 | | 9.2.2.131 | | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >Qth Parameter | 0 | | 9.2.2.34a | | YES | ignore |
| Active Pattern Sequence Information | 0 | | 9.2.2A | Either all the already active Transmission Gap Sequence(s) are addressed (Transmission Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated. | YES | reject |
| DPC Mode | 0 | | 9.2.2.12A | | YES | reject |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |

| Range bound | Explanation | | | |
|-------------|---|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE. | | | |

9.1.6.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--------------------------------|----------------|--|-------------|----------------------|
| | | | Reference | Description | | Criticality |
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | rojoot |
| RL Information | 141 | 1 | 0.2.1.00 | | YES | reject |
| >RL ID | М | <u>'</u> | 9.2.1.49 | | - | 10,000 |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >Frame Offset | M | | 9.2.1.30 | | _ | |
| >Diversity Control Field | М | | 9.2.1.20 | | _ | |
| >Primary CCPCH RSCP | 0 | | 9.2.3.5 | | _ | |
| >DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Applicable to 3.84Mcps TDD only | - | |
| >DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | reject |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>Uplink Synchronisation Step Size | М | | 9.2.3.13J | | _ | |
| >>Uplink Synchronisation Frequency | М | | 9.2.3.131 | | _ | |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| UL CCTrCH Information | | 0< maxno ofCCTr CHs > | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | _ | |
| DL CCTrCH Information | | 0< maxno ofCCTr CHs > | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TDD TPC Downlink Step Size | 0 | | 9.2.3.10 | | - | |

| Range bound | Explanation |
|----------------|--------------------------------------|
| maxnoofCCTrCHs | Maximum number of CCTrCH for one UE. |

9.1.7 RADIO LINK ADDITION RESPONSE

9.1.7.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--------------------------------------|--|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | • |
| RL Information Response | | 1 <maxnoof RLs-1></maxnoof | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >RL Set ID | M | | 9.2.2.35 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >Received Total Wide Band Power | М | | 9.2.2.35A | | _ | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >CHOICE Diversity Indication | М | | | | - | |
| >>Combining | | | | | _ | |
| >>>RL ID | М | | 9.2.1.49 | Reference RL ID | - | |
| >>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>Non Combining | | | | | _ | |
| >>>DCH Information Response | М | | 9.2.1.16A | | _ | |
| >SSDT Support Indicator | M | | 9.2.2.43 | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 9.2.2.3A | | _ | |
| >Closed Loop Timing Adjustment Mode | 0 | | | | _ | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | - | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | - | |
| >PC Preamble | M | | 9.2.2.27a | | _ | |
| >SRB Delay | M | | 9.2.2.39A | | _ | |
| >Primary CPICH Power >Cell GA Additional Shapes | M O | | 9.2.1.44 9.2.1.5B | | YES | ignore |
| >DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation | | | |
|-------------|---|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE. | | | |

9.1.7.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|--|-----------------------------|---|-------------|-------------------------|
| Magaga Typa | M | | 9.2.1.40 | | YES | roiget |
| Message Type Transaction ID | M | | 9.2.1.40 | | TES | reject |
| RL Information Response | IVI | 01 | 5.2.1.39 | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info | M | | 9.2.3.13D | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >PCCPCH Power | М | | 9.2.1.43 | | _ | |
| >Timing Advance Applied | M | | 9.2.3.12A | | _ | |
| >Alpha Value | M | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | М | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info TDD | 0 | | 9.2.3.7B | | _ | |
| >UL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>UL DPCH | | 01 | | | YES | ignore |
| Information | | | | | | 3 |
| >>>Repetition Period | М | | 9.2.3.7 | | _ | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | М | | 9.2.3.13C | | _ | |
| >DL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>DL DPCH Information | | 01 | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information | М | | 9.2.3.2C | | _ | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|-----------------------------|---|-------------|-------------------------|
| >DCH Information | | 01 | Reference | | _ | |
| >>CHOICE Diversity | М | 01 | | | _ | |
| Indication | | | | | | |
| >>>Combining | | | | | _ | |
| >>>RL ID | M | | 9.2.1.49 | Reference RL | _ | |
| >>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>>Non Combining | | | | | _ | |
| >>>>DCH Information Response | M | | 9.2.1.16A | | _ | |
| >DSCH Information Response | | 0 <maxnoof DSCHs></maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >>DSCH Flow Control Information | M | | 9.2.1.26B | | - | |
| >>CHOICE Diversity Indication | 0 | | | | _ | |
| >>>Non Combining | | | | | _ | |
| >>>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>>Transport Layer Address | 0 | | 9.2.1.62 | | - | |
| >USCH Information | | 0 | | | GLOBAL | ignore |
| Response | | <maxnoof USCHs></maxnoof | | | | J |
| >>USCH ID | M | | 9.2.3.14 | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | _ | |
| >>CHOICE Diversity Indication | 0 | | | | _ | |
| >>>Non Combining | | | | | _ | |
| >>>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >HCS Prio | <u>O</u> | | 9.2.1.30N | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| RL Information Response LCR | | 01 | | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | ignore |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >URA Information | M | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.13H | | - | |
| >Maximum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|--|-----------------------------|--------------------------|-------------|-------------------------|
| >Minimum Uplink SIR | M | | Uplink SIR | | _ | |
| 70070117 | | | 9.2.1.69 | | | |
| >PCCPCH Power | M | | 9.2.1.43 | | _ | |
| >Maximum Allowed UL Tx Power | | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | M | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | M | | DL Power 9.2.1.21A | | _ | |
| >Alpha Value | M | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info TDD LCR | 0 | | 9.2.3.7F | | _ | |
| >UL CCTrCH Information LCR | | 0 <maxnoof CCTrCHsLC R></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>UL DPCH Information LCR | | 01 | | | YES | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | | _ | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | - | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.13G | | _ | |
| >DL CCTrCH Information LCR | | 0 <maxnoof CCTrCHsLC R></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH | | 01 | | | YES | ignore |
| Information LCR | | | | | | |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset >>>DL Timeslot | M | | 9.2.3.8A 9.2.3.2E | | _ | |
| Information LCR | | | | | _ | |
| >>>TSTD Indicator | M | | 9.2.3.13E | | _ | |
| >DCH Information Response | M | | 9.2.1.16A | | _ | |
| >DSCH Information Response LCR | | 0 <maxnoof DSCHsLCR</maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | М | 1 | 9.2.1.26A | | _ | |
| >>DSCH Flow Control Information | M | | 9.2.1.26B | | - | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | = | |
| >>Transport Format Management | M | | 9.2.3.13 | | = | |
| >USCH Information Response LCR | | 0 <maxnoof USCHsLCR</maxnoof | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >>CHOICE Diversity Indication | 0 | | | | _ | |
| >>>Non Combining | | | | | _ | |
| >>>>Binding ID | 0 | | 9.2.1.3 | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| >>>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Uplink Timing Advance Control LCR | М | | 9.2.3.13K | | YES | ignore |

| Range Bound Explanation | | | | | |
|-------------------------|--|--|--|--|--|
| maxnoofDSCHs | Maximum number of DSCHs for one UE for 3.84Mcps TDD. | | | | |
| maxnoofUSCHs | Maximum number of USCHs for one UE for 3.84Mcps TDD. | | | | |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for one UE for 3.84Mcps TDD. | | | | |
| maxnoofDSCHsLCR | Maximum number of DSCHs for one UE for 1.28Mcps TDD. | | | | |
| maxnoofUSCHsLCR | Maximum number of USCHs for one UE for 1.28Mcps TDD. | | | | |
| maxnoofCCTrCHsLCR | Maximum number of CCTrCH for one UE for 1.28Mcps TDD. | | | | |

9.1.8 RADIO LINK ADDITION FAILURE

9.1.8.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--------------------------------------|--|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | _ | |
| >>Cause | M | | 9.2.1.5 | | _ | |
| >RL Specific | | | | | | |
| >>Unsuccessful RL Information Response | | 1 <maxnoof RLs-1></maxnoof | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | | |
| >>Successful RL Information Response | | 0 <maxnoof RLs-2></maxnoof | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>URA Information | 0 | | 9.2.1.70B | | _ | |
| >>>SAI | M | | 9.2.1.52 | | _ | |
| >>>Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >>>UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >>>Received Total Wide Band Power | М | | 9.2.2.35A | | _ | |
| >>>Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >>>DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >>>CHOICE Diversity Indication | М | | 0.2.2.1 171 | | _ | |
| >>>Combining | | | | | _ | |
| >>>>RL ID | M | | 9.2.1.49 | Reference RL ID | _ | |
| >>>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>>Non Combining | | | | | _ | |
| >>>>DCH Information Response | M | | 9.2.1.16A | | _ | |
| >>>SSDT Support Indicator | M | | 9.2.2.43 | | _ | |
| >>>Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | - | |
| >>>Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >>>Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Minimum DL TX Power | М | | DL Power 9.2.1.21A | | - | |
| >>>Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | - | |
| >>>Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >>>Primary CPICH | M | | 9.2.1.44 | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Power | | | | | | |
| >>>PC Preamble | M | | 9.2.2.27a | | _ | |
| >>>SRB Delay | M | | 9.2.2.39A | | _ | |
| >>>Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >>>DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >>>TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >>>HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >>>Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation | | | |
|-------------|---|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE. | | | |

9.1.8.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | ı | |
| >>Cause | M | | 9.2.1.5 | | ı | |
| >RL Specific | | | | | - | |
| >>Unsuccessful RL Information Response | | 1 | | | YES | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | ı | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.9 RADIO LINK DELETION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| RL Information | | 1 <maxno< td=""><td></td><td></td><td>EACH</td><td>notify</td></maxno<> | | | EACH | notify |
| | | ofRLs> | | | | |
| >RL ID | М | | 9.2.1.49 | | _ | |

| Range bound | Explanation | | | |
|-------------|--|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE | | | |

9.1.10 RADIO LINK DELETION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.11 RADIO LINK RECONFIGURATION PREPARE

9.1.11.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------------|---------------------------------------|------------------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | . 0,001 |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL DPCH Information | | 01 | 0.2.1.2 | | YES | reject |
| >UL Scrambling Code | 0 | · · · · · · · · · · · · · · · · · · · | 9.2.2.53 | | _ | . 0,001 |
| >UL SIR Target | 0 | | Uplink SIR | | _ | |
| >02 On Taigot | | | 9.2.1.69 | | | |
| >Min UL Channelisation Code Length | 0 | | 9.2.2.25 | | _ | |
| >Max Number of UL DPDCHs | C - CodeLen | | 9.2.2.24 | | _ | |
| >Puncture Limit | 0 | | 9.2.1.46 | For the UL. | _ | |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the UL. | _ | |
| >UL DPCCH Slot Format | 0 | | 9.2.2.52 | | _ | |
| >Diversity Mode | 0 | | 9.2.2.8 | | _ | |
| >SSDT Cell Identity Length | 0 | | 9.2.2.41 | | _ | |
| >S-Field Length | 0 | | 9.2.2.36 | | _ | |
| DL DPCH Information | | 01 | | | YES | reject |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the DL. | _ | |
| >DL DPCH Slot Format | 0 | | 9.2.2.9 | | _ | |
| >Number of DL | 0 | | 9.2.2.26A | | _ | |
| Channelisation Codes | | | 0.0.0.40 | | | |
| >TFCI Signalling Mode | O C- | | 9.2.2.46 | | _ | |
| >TFCI Presence | SlotFormat | | 9.2.1.55 | | _ | |
| >Multiplexing Position | 0 | | 9.2.2.26 | | _ | |
| >Limited Power Increase | 0 | | 9.2.2.21A | | - | |
| >Split Type | 0 | | 9.2.2.39a | | YES | reject |
| >Length of TFCI2 | 0 | | 9.2.2.21C | | YES | reject |
| DCHs To Modify | 0 | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | 0 | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DCHs to Delete | | 0 <maxnoof DCHs></maxnoof | | | GLOBAL | reject |
| >DCH ID | М | | 9.2.1.16 | | _ | |
| DSCHs To Modify | | 01 | | | YES | reject |
| >DSCH Info | | 0 <maxnoof DSCHs></maxnoof | | | | |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>TrCH Source Statistics Descriptor | 0 | | 9.2.1.65 | | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For DSCH | | |
| >>Allocation/ Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >>Scheduling Priority Indicator | 0 | | 9.2.1.51A | | - | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|--------------------------|---|--|---|-------------|-------------------------|
| >>BLER | 0 | | 9.2.1.4 | | _ | |
| >>Transport Bearer Request Indicator | М | | 9.2.1.61 | | _ | |
| >>Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |
| >>Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >>Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >PDSCH RL ID | 0 | | RL ID 9.2.1.49 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | For DSCH | _ | |
| >Enhanced DSCH PC Indicator | 0 | | 9.2.2.13F | | YES | ignore |
| >Enhanced DSCH PC | C- EDSCHPC On | | 9.2.2.13D | | YES | ignore |
| DSCHs To Add | 0 | | DSCH FDD Information 9.2.2.13A | | YES | reject |
| DSCHs to Delete | | 01 | | | YES | reject |
| >DSCH Info | | 1 <maxnoof DSCHs></maxnoof | | | _ | - |
| >>DSCH ID | M | | 9.2.1.26A | | _ | |
| RL Information | | 0 <maxnoof RLs></maxnoof | | | EACH | reject |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >SSDT Indication | 0 | | 9.2.2.42 | | _ | |
| >SSDT Cell Identity | C - SSDTIndON | | 9.2.2.40 | | _ | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | _ | |
| >SSDT Cell Identity for EDSCHPC | C- EDSCHPC | | 9.2.2.40A | | YES | ignore |
| >DL Reference Power | 0 | | DL Power 9.2.1.21A | Power on DPCH | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >DL DPCH Timing Adjustment | 0 | | 9.2.2.9A | Required RL Timing Adjustment | YES | reject |
| >Qth Parameter | 0 | | 9.2.2.34a | | YES | ignore |
| >Phase Reference Update Indicator | 0 | | 9.2.2.27B | | YES | ignore |
| Transmission Gap Pattern Sequence Information | 0 | | 9.2.2.47A | | YES | reject |
| HS-DSCH Information To Modify | 0 | | 9.2.1.30Q | | YES | reject |
| HS-DSCH Information To Add | 0 | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-DSCH Information To | | 0 <maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxnoof<> | | | GLOBAL | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------------|-----------------------------|--------------------------|-------------|-------------------------|
| Delete | | MACdFlows > | | | | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| HS-PDSCH RL ID | 0 | | RL ID 9.2.1.49 | | YES | reject |
| UE Support Of Dedicated Pilots For Channel Estimation | 0 | | 9.2.2.50A | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | 0 | | 9.2.2.50B | | YES | ignore |

| Condition | Explanation |
|----------------|---|
| SSDTIndON | The IE shall be present if the SSDT Indication IE is set to "SSDT Active in the UE". |
| CodeLen | The IE shall be present only if the <i>Min UL Channelisation Code length</i> IE equals to 4. |
| SlotFormat | The IE shall only be present if the <i>DL DPCH Slot</i> Format IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if <i>Diversity Mode</i> IE is present in the <i>UL DPCH Information</i> IE and is not equal to "none". |
| EDSCHPCOn | The IE shall be present if the <i>Enhanced DSCH PC Indicator</i> IE is set to "Enhanced DSCH PC Active in the UE". |
| EDSCHPC | The IE shall be present if Enhanced DSCH PC IE is present in either the DSCHs To Modify IE or the DSCHs To Add IE. |

| Range bound | Explanation | | | |
|------------------|---------------------------------------|--|--|--|
| maxnoofDCHs | Maximum number of DCHs for a UE. | | | |
| maxnoofDSCHs | Maximum number of DSCHs for one UE. | | | |
| maxnoofRLs | Maximum number of RLs for a UE. | | | |
| maxnoofMACdFlows | Maximum number of HS-DSCH MAC-d flows | | | |

9.1.11.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|-------------------------|---|-------------|----------------------|
| | 1.4 | | Reference | | \/F0 | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M O | | 9.2.1.59 9.2.1.2 | | YES | raigat |
| Allowed Queuing Time UL CCTrCH To Add | 0 | 0 | 9.2.1.2 | For DCH and | EACH | reject |
| OL COTTCH TO Add | | 0 <maxno ofCCTrCH s></maxno | | USCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | M | | 9.2.1.63 | For the UL. | _ | |
| >TFCI Coding | M | | 9.2.3.11 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | | _ | |
| >UL SIR Target | 0 | | Uplink SIR 9.2.1.69 | Mandatory for 1.28Mcps TDD; not applicable to 3.84Mcps TDD | YES | reject |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | reject |
| UL CCTrCH To Modify | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | М | <u> </u> | 9.2.3.2 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | For the UL. | _ | |
| >TFCI Coding | 0 | | 9.2.3.11 | | _ | |
| >Puncture Limit | 0 | | 9.2.1.46 | | _ | |
| >UL SIR Target | 0 | | Uplink SIR 9.2.1.69 | Applicable to 1.28Mcps TDD only | YES | reject |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | YES | reject |
| UL CCTrCH to Delete | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| DL CCTrCH To Add | | 0 <maxno ofCCTrCH s></maxno | | For DCH and DSCH | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >TFCS | M | | 9.2.1.63 | For the DL. | _ | |
| >TFCI Coding | M | | 9.2.3.11 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | | _ | |
| >TPC CCTrCH List | | 0 <maxno CCTrCHs></maxno | | List of uplink CCTrCH which provide TPC | - | |
| >>TPC CCTrCH ID | М | | CCTrCH ID 9.2.3.2 | | - | |
| >TDD TPC Downlink Step Size | 0 | | 9.2.3.10 | | YES | reject |
| DL CCTrCH To Modify | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | 0 | 1 | 9.2.1.63 | For the DL. | | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--|--|---|-------------|----------------------|
| | | | Reference | - | | |
| >TFCI Coding | 0 | | 9.2.3.11 | | - | |
| >Puncture Limit | 0 | | 9.2.1.46 | | _ | |
| >TPC CCTrCH List | | 0 <maxno CCTrCHs></maxno | | List of uplink CCTrCH which provide TPC | I | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.2 | | I | |
| >TDD TPC Downlink Step Size | 0 | | 9.2.3.10 | | YES | reject |
| DL CCTrCH to Delete | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| DCHs To Modify | 0 | | TDD DCHs To Modify 9.2.3.8B | | YES | reject |
| DCHs To Add | 0 | | DCH TDD Information 9.2.3.2A | | YES | reject |
| DCHs to Delete | | 0 <maxno ofDCHs></maxno | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | _ | |
| DSCHs To Modify | | 0 <maxno ofDSCHs></maxno | | | GLOBAL | reject |
| >DSCH ID | M | | 9.2.1.26A | | 1 | |
| >CCTrCH ID | 0 | | 9.2.3.2 | DL CCTrCH in which the DSCH is mapped. | _ | |
| >TrCH Source Statistics Descriptor | 0 | | 9.2.1.65 | | _ | |
| >Transport Format Set | 0 | | 9.2.1.64 | | _ | |
| >Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | 0 | | 9.2.1.51A | | ı | |
| >BLER | 0 | | 9.2.1.4 | | _ | |
| >Transport Bearer Request Indicator | М | | 9.2.1.61 | | _ | |
| >Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishmen t with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishmen t with ALCAP. | YES | ignore |
| DSCHs To Add | 0 | | DSCH TDD Information 9.2.3.3a | | YES | reject |
| DSCHs to Delete | | 0 <maxno ofDSCHs></maxno | 0.2.0.00 | | GLOBAL | reject |
| >DSCH ID | М | | 9.2.1.26A | | _ | |
| USCHs To Modify | | 0 <maxno< td=""><td>_</td><td></td><td>GLOBAL</td><td>reject</td></maxno<> | _ | | GLOBAL | reject |

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|------------------------------------|---------------------------------|---|-----------------|-------------------------|
| | | ofUSCHs> | 11010101100 | | | |
| >USCH ID | M | | 9.2.3.14 | | _ | |
| >CCTrCH ID | 0 | | 9.2.3.2 | UL CCTrCH in which the USCH is mapped. | - | |
| >TrCH Source Statistics Descriptor | 0 | | 9.2.1.65 | | _ | |
| >Transport Format Set | 0 | | 9.2.1.64 | | - | |
| >Allocation/Retention Priority | 0 | | 9.2.1.1 | | ı | |
| >Scheduling Priority Indicator | 0 | | 9.2.1.51A | | ı | |
| >BLER | 0 | | 9.2.1.4 | | 1 | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | ı | |
| ⇒Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishmen t-with ALCAP. | ¥ ES | ignore |
| >Transport Layer Address | θ | | 9.2.1.62 | Shall be ignored if bearer establishmen t-with ALCAP. | ¥ ES | ignore |
| >RB Info | | 0 <maxno ofRB></maxno | | All Radio Bearers using this USCH | - | |
| >>RB Identity | M | | 9.2.3.5B | | _ | |
| >Traffic class | 0 | | 9.2.1.58A | | YES | ignore |
| >Binding ID | <u>O</u> | | 9.2.1.3 | Shall be ignored if bearer establishmen t with ALCAP. | <u>YES</u> | <u>ignore</u> |
| >Transport Layer Address | <u>O</u> | | 9.2.1.62 | Shall be ignored if bearer establishmen t with ALCAP. | <u>YES</u> | <u>ignore</u> |
| USCHs To Add | 0 | | USCH Information 9.2.3.15 | | YES | reject |
| USCHs to Delete | | 0 <maxno ofUSCHs></maxno | | | GLOBAL | reject |
| >USCH ID | M | | 9.2.3.14 | | | |
| RL Information | | 01 | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | _ | |
| Primary CCPCH RSCP | 0 | | 9.2.3.5 | | YES | ignore |
| DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Applicable to 3.84Mcps TDD only | YES | ignore |
| DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|--|--|-------------|-------------------------|
| HS-DSCH Information To Modify | 0 | | 9.2.1.30Q | | YES | reject |
| HS-DSCH Information To Add | 0 | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-DSCH Information To Delete | | 0 <maxno ofMACdFl ows></maxno | | | GLOBAL | reject |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.300 | | | |
| HS-PDSCH RL ID | 0 | | RL ID 9.2.1.49 | | YES | reject |
| PDSCH-RL-ID | 0 | | RL ID 9.2.1.49 | | YES | ignore |
| >UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >Uplink Synchronisation Step Size | M | | 9.2.3.13J | | _ | |
| >Uplink Synchronisation Frequency | М | | 9.2.3.131 | | _ | |

| Range bound | Explanation |
|------------------|---------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for a UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |
| maxnoofUSCHs | Maximum number of USCHs for one UE. |
| maxnoofMACdFlows | Maximum number of HS-DSCH MAC-d flows |

9.1.12 RADIO LINK RECONFIGURATION READY

9.1.12.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|----------------------------------|--|--------------------------|-------------|----------------------|
| Managara Truss | | | Reference | | \/F0 | |
| Message Type Transaction ID | M | | 9.2.1.40 9.2.1.59 | | YES | reject |
| RL Information Response | IVI | 0 <maxno ofRLs></maxno | 9.2.1.59 | | EACH | ignore |
| >RL ID | M | 0.7.1207 | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | - | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | ı | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DL Code Information | 0 | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCHs to be Added or Modified | 0 | | DSCH FDD Information Response 9.2.2.13B | | YES | ignore |
| >DL Power Balancing Updated Indicator | 0 | | 9.2.2.10D | | YES | ignore |
| >HS-DSCH Information Response | 0 | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| >Secondary CPICH Information Change | 0 | | 9.2.2.38B | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| MAC-hs Reset Indicator | 0 | | 9.2.1.34B | | YES | reject |

| Range bound | Explanation | | |
|-------------|---------------------------------|--|--|
| maxnoofRLs | Maximum number of RLs for a UE. | | |

9.1.12.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|---------------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | , |
| RL Information Response | | 01 | 0.200 | | YES | ignore |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | Ö | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Secondary CCPCH Info TDD | 0 | | 9.2.3.7B | | _ | |
| >UL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>UL DPCH to be Added | | 01 | | Applicable to 3.84Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH | M | | 9.2.3.8A | | _ | |
| Offset | | | | | | |
| >>> Rx Timing Deviation | 0 | | 9.2.3.7A | | _ | |
| >>>UL Timeslot Information | М | | 9.2.3.13C | | _ | |
| >>UL DPCH to be Modified | | 01 | | | YES | ignore |
| >>>Repetition Period | 0 | | 9.2.3.7 | | _ | |
| >>>Repetition Length | 0 | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | 0 | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | | 0 <maxno0 fTS></maxno0 | | Applicable to 3.84Mcps TDD only | _ | |
| >>>Time Slot | M | | 9.2.1.56 | | _ | |
| >>>>Midamble Shift And Burst Type | 0 | | 9.2.3.4 | | _ | |
| >>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>UL Code Information | | 0 <maxno0 fDPCHs></maxno0 | | | - | |
| >>>>DPCH ID | М | | 9.2.3.3 | | _ | |
| >>>>TDD Channelisation Code | 0 | | 9.2.3.8 | | _ | |
| >>>UL Timeslot Information LCR | | 0 <maxno0 fTSLCR></maxno0 | | Applicable to 1.28Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >>>Midamble Shift LCR | 0 | | 9.2.3.4C | | - | |
| >>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>UL Code | | 0 <maxno0< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxno0<> | | | GLOBAL | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--|-----------------------------|---------------------------------------|-------------|-------------------------|
| Information LCR | | fDPCHLCR> | Reference | | | |
| >>>>DPCH | M | IDFCITLORS | 9.2.3.3 | | | |
| ID | | | | | _ | |
| >>>>TDD Channelisation Code LCR | 0 | | 9.2.3.8a | | _ | |
| >>>> TDD UL DPCH Time Slot Format LCR | 0 | | 9.2.3.10C | | YES | reject |
| >>UL DPCH to be Deleted | | 0 <maxnoof DPCHs></maxnoof | | | GLOBAL | ignore |
| >>>DPCH ID | М | | 9.2.3.3 | | _ | |
| >>UL DPCH to be Added LCR | | 01 | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information LCR | M | | 9.2.3.13G | | _ | |
| >DL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH to be Added | | 01 | | Applicable to 3.84Mcps TDD only | YES | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | | _ | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information | M | | 9.2.3.2C | | _ | |
| >>DL DPCH to be Modified | | 01 | | | YES | ignore |
| >>>Repetition Period | 0 | | 9.2.3.7 | | _ | |
| >>>Repetition Length | 0 | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | 0 | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information | | 0 <maxnoo fTS></maxnoo | | Applicable to 3.84Mcps TDD only | _ | |
| >>>>Time Slot | M | | 9.2.1.56 | | _ | |
| >>>>Midamble Shift And Burst Type | 0 | | 9.2.3.4 | | _ | |
| >>>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>>DL Code | | 0 <maxnoo< td=""><td></td><td></td><td>_</td><td></td></maxnoo<> | | | _ | |
| Information | ļ | fDPCHs> | 0000 | | | |
| >>>>DPCH ID | M | | 9.2.3.3 | | _ | |
| >>>>TDD Channelisation Code | 0 | | 9.2.3.8 | | _ | |
| >>>DL Timeslot Information LCR | | 0 <maxno0 fTSLCR></maxno0 | | Applicable to 1.28Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | | |
| >>>>Midamble Shift LCR | 0 | | 9.2.3.4C | | _ | |
| >>>>TFCI Presence | 0 | | 9.2.1.55 | | | |
| >>>DL Code Information LCR | | 0 <maxno0 fDPCHLCR></maxno0 | | | GLOBAL | ignore |
| >>>>DPCH ID | M | | 9.2.3.3 | | | |
| >>>>TDD Channelisation | 0 | | 9.2.3.8a | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|---|---|-------------|-------------------------|
| Code LCR | | | | | | |
| >>>> TDD DL DPCH Time Slot Format LCR | 0 | | 9.2.3.8E | | YES | reject |
| >>>>Maximum DLTX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>>>Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |
| >>DL DPCH to be Deleted | | 0 <maxnoof DPCHs></maxnoof | | | GLOBAL | ignore |
| >>>DPCH ID | M | | 9.2.3.3 | | _ | |
| >>DL DPCH to be Added LCR | | 01 | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information LCR | М | | 9.2.3.2E | | _ | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCH to be Added or Modified | | 0 <maxnoof DSCHs></maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | M | | 9.2.1.26A | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | _ | |
| >>DSCH Flow Control Information | М | | 9.2.1.26B | | _ | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >USCH to be Added or Modified | | 0 <maxnoof USCHs></maxnoof | | | GLOBAL | ignore |
| >>USCH ID | M | | 9.2.3.14 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | | |
| >HS-DSCH Information Response | 0 | | HS-DSCH TDD Information Response | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|-------|-------------|---------------------------------------|-------------|----------------------|
| | | | Reference | | | |
| | | | 9.2.3.3ab | | | |
| >Uplink Timing Advance Control LCR | 0 | | 9.2.3.13K | Applicable to 1.28Mcps TDD only | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| MAC-hs Reset Indicator | 0 | | 9.2.1.34B | | YES | reject |

| Range bound | Explanation |
|-----------------|--|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |
| maxnoofUSCHs | Maximum number of USCHs for one UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofTS | Maximum number of Timeslots for a UE for 3.84Mcps TDD. |
| maxnoofDPCHs | Maximum number of DPCH for a UE for 3.84Mcps TDD. |
| maxnoofTSLCRs | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| maxnoofDPCHLCRs | Maximum number of DPCH for a UE for 1.28Mcps TDD. |

9.1.13 RADIO LINK RECONFIGURATION COMMIT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CFN | M | | 9.2.1.9 | | YES | ignore |
| Active Pattern Sequence Information | 0 | | 9.2.2.A | FDD only | YES | ignore |

9.1.14 RADIO LINK RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|------------------------------------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | • | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | _ | |
| >>Cause | M | | 9.2.1.5 | | _ | |
| >RL Specific | | | | | _ | |
| >>RLs Causing Reconfiguration Failure | | 0 <maxnoof RLs></maxnoof | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|-------------|---------------------------------|
| maxnoofRLs | Maximum number of RLs for a UE. |

9.1.15 RADIO LINK RECONFIGURATION CANCEL

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |

9.1.16 RADIO LINK RECONFIGURATION REQUEST

9.1.16.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-----------------------------------|------------------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL DPCH Information | | 01 | | | YES | reject |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the UL. | 1 | |
| DL DPCH Information | | 01 | | | YES | reject |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the DL. | _ | - |
| >TFCI Signalling Mode | 0 | | 9.2.2.46 | | _ | |
| >Limited Power Increase | 0 | | 9.2.2.21A | | _ | |
| DCHs To Modify | 0 | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | 0 | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DCHs to Delete | | 0 <maxno ofDCHs></maxno | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | _ | |
| Transmission Gap Pattern Sequence Information | 0 | | 9.2.2.47A | | YES | reject |
| RL Information | | 0 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | 1 | |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | 1 | |
| DL Reference Power Information | 0 | | 9.2.2.10C | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation | 0 | | 9.2.2.50A | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | 0 | | 9.2.2.50B | | YES | ignore |

9.1.16.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|--|------------------------------------|--|-------------|----------------------|
| | | | Reference | - | | _ |
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| Allowed Queuing Time | | | | | | |
| UL CCTrCH Information To Modify | | 0 <maxnoof CCTrCHs></maxnoof | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | | _ | |
| >UL SIR Target | 0 | | Uplink SIR 9.2.1.69 | Applicable to 1.28Mcps TDD only | YES | reject |
| UL CCTrCH Information to Delete | | 0 <maxnoof CCTrCHs></maxnoof | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| DL CCTrCH Information To Modify | | 0 <maxnoof CCTrCHs></maxnoof | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | | _ | |
| DL CCTrCH Information to Delete | | 0 <maxnoof CCTrCHs></maxnoof | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| DCHs To Modify | 0 | | TDD DCHs To Modify 9.2.3.8B | | YES | reject |
| DCHs To Add | 0 | | DCH TDD Information 9.2.3.2A | | YES | reject |
| DCHs to Delete | | 0 <maxnoof DCHs></maxnoof | | | GLOBAL | reject |
| >DCH ID | М | | 9.2.1.16 | | _ | |
| RL Information | | 01 | | | YES | ignore |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | _ | |
| UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >Uplink Synchronisation Step Size | М | | 9.2.3.13J | | _ | |
| >Uplink Synchronisation Frequency | М | | 9.2.3.131 | | _ | |

| Range Bound | Explanation |
|----------------|-------------------------------------|
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.1.17 RADIO LINK RECONFIGURATION RESPONSE

9.1.17.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|----------------------------------|--|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | • |
| RL Information Response | | 0 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DL Code Information | 0 | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DL Power Balancing Updated Indicator | 0 | | 9.2.2.10D | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range Bound | Explanation |
|-------------|---------------------------------|
| maxnoofRLs | Maximum number of RLs for a UE. |

9.1.17.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|-----------------------------|---|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| RL Information Response | | 01 | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | ı | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | ı | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH To Modify LCR | | 01 | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>DL Timeslot Information LCR | | 0 <maxno OfTSLCR ></maxno | | | - | |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >>>>Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | _ | |
| >>>Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | - | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >Uplink Timing Advance Control LCR | 0 | | 9.2.3.13K | Applicable to 1.28Mcps TDD only | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|----------------|---|
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofTSLCRs | Maximum number of Timeslots for a UE for 1.28Mcps |
| | TDD. |

9.1.18 RADIO LINK FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|--|----------------|---|-------------|-------------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Reporting Object | M | | | Object for which the Failure shall be reported. | YES | ignore |
| >RL | | | | | _ | |
| >>RL Information | | 1 <maxnoofrl s></maxnoofrl | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| >RLS | | | | FDD only | _ | |
| >>RL Set Information | | 1 <maxnoofrl Sets></maxnoofrl | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| >CCTrCH | | | | TDD only | | |
| >>RL ID | M | | 9.2.1.49 | | _ | |
| >>CCTrCH List | | 1 <maxnoc CTrCHs></maxnoc | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |

| Range bound | Explanation |
|----------------|---------------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |
| maxnoofRLSets | Maximum number of RL Sets for one UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |

9.1.19 RADIO LINK RESTORE INDICATION

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|---|----------------|---|-------------|-------------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Reporting Object | М | | | Object for which the Restoration shall be reported. | YES | ignore |
| >RL | | | | TDD only | _ | |
| >>RL Information | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >RLS | | | | FDD only | _ | |
| >>RL Set Information | | 1 <maxno ofRLSet s></maxno | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >CCTrCH | | | | TDD only | | |
| >>RL ID | М | | 9.2.1.49 | | _ | |
| >>CCTrCH List | | 1 <max noCCTr CHs></max | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.2 | | _ | |

| Range bound | Explanation |
|----------------|---------------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |
| maxnoofRLSets | Maximum number of RL Sets for one UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |

9.1.20 DL POWER CONTROL REQUEST [FDD]

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|-------------|---|----------------|--------------------------|-------------|----------------------|
| | | | Reference | - | | _ |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Power Adjustment Type | M | | 9.2.2.28 | | YES | ignore |
| DL Reference Power | C- | | DL Power | | YES | ignore |
| | Common | | 9.2.1.21A | | | - |
| Inner Loop DL PC Status | 0 | | 9.2.2.21a | | YES | ignore |
| DL Reference Power | C- | 1 <maxnoo< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoo<> | | | EACH | ignore |
| Information | Individual | fRLs> | | | | |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Reference Power | M | | DL Power | | _ | |
| | | | 9.2.1.21A | | | |
| Max Adjustment Step | C- | | 9.2.2.23 | | YES | ignore |
| | CommonO | | | | | |
| | rIndividual | | | | | |
| Adjustment Period | C- | | 9.2.2.B | | YES | ignore |
| | CommonO | | | | | |
| | rIndividual | | | | | |
| Adjustment Ratio | C- | | 9.2.2.C | | YES | ignore |
| | CommonO | | | | | |
| | rIndividual | | | | | |

| Condition | Explanation |
|--------------------|---|
| Common | The IE shall be present if the Power Adjustment Type IE is set to |
| | "Common". |
| Individual | The IE shall be present if the Power Adjustment Type IE is set to |
| | "Individual". |
| CommonOrIndividual | The IE shall be present if the Power Adjustment Type IE is set to |
| | "Common" or "Individual". |

| Range Bound | Explanation |
|-------------|-----------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |

9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

9.1.21.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------------|----------|-------|--|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | _ |
| RL Information | | 1 | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | YES | notify |

9.1.21.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|---|---|---------------------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | • |
| RL Information | | 1 | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | ı | |
| >UL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | | GLOBAL | reject |
| >>CCTrCH ID | М | 001101102 | 9.2.3.2 | | _ | |
| >>UL DPCH Information | 1 | 1 | 0.2.0.2 | | YES | notify |
| >>>Repetition Period | 0 | , | 9.2.3.7 | | - | nomy |
| >>>Repetition Length | 0 | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | 0 | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | | 0 <maxno OfTS></maxno | 0.2.0.07 | Applicable to 3.84Mcps TDD only | - | |
| >>>>Time Slot | M | | 9.2.1.56 | | _ | |
| >>>Midamble Shift And Burst Type | 0 | | 9.2.3.4 | | _ | |
| >>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>>UL Code Information | 0 | | TDD UL Code Information 9.2.3.10A | | ı | |
| >>>UL Timeslot Information LCR | | 0 <maxno OfTSLCR ></maxno | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >>>Midamble Shift LCR | 0 | | 9.2.3.4C | | _ | |
| >>>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>>UL Code Information LCR | 0 | | TDD UL Code Information LCR 9.2.3.10B | | - | |
| >DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | | GLOBAL | reject |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>DL DPCH Information | | 1 | | | YES | notify |
| >>>Repetition Period | 0 | | 9.2.3.7 | | ı | |
| >>>Repetition Length | 0 | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | 0 | | 9.2.3.8A | | - | |
| >>>DL Timeslot Information | | 0 <maxno OfTS></maxno | | Applicable to 3.84Mcps TDD only | _ | |
| >>>>Time Slot | М | | 9.2.1.56 | | | |
| >>>Midamble Shift And Burst Type | 0 | | 9.2.3.4 | | _ | |
| >>>TFCI Presence | 0 | | 9.2.1.55 | | - | |
| >>>>DL Code Information | 0 | | TDD DL Code Information 9.2.3.8C | | I | |
| >>>DL Timeslot Information LCR | | 0 <maxno OfTSLCR ></maxno | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>>Time Slot LCR | М | | 9.2.3.12a | , | _ | |
| >>>Midamble Shift LCR | 0 | | 9.2.3.4C | | _ | |
| >>>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |

| >>>>DL Code | 0 | | TDD DL | | _ | |
|--------------------------|---|--|-------------|---------------|--------|--------|
| Information LCR | | | Code | | | |
| | | | Information | | | |
| | | | LCR | | | |
| | | | 9.2.3.8D | | | |
| >HS-PDSCH Timeslot | | 0 <maxno< td=""><td></td><td>Applicable to</td><td>GLOBAL</td><td>reject</td></maxno<> | | Applicable to | GLOBAL | reject |
| Specific Information | | ofDLts> | | 3.84Mcps | | - |
| | | | | TDD only. | | |
| >>Time Slot | M | | 9.2.1.56 | | _ | |
| >>Midamble Shift And | M | | 9.2.3.4 | | _ | |
| Burst Type | | | | | | |
| >HS-PDSCH Timeslot | | 0 <maxno< td=""><td></td><td>Applicable to</td><td>GLOBAL</td><td>reject</td></maxno<> | | Applicable to | GLOBAL | reject |
| Specific Information LCR | | ofDLtsLCR | | 1.28Mcps | | - |
| | | > | | TDD only | | |
| >>Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >>Midamble Shift LCR | M | | 9.2.3.4C | | _ | |

| Range bound | Explanation |
|----------------|--|
| | |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofTS | Maximum number of Timeslots for a UE for 3.84Mcps TDD. |
| maxnoofTSLCR | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| maxnoofDLts | Maximum number of downlink time slots per Radio Link for |
| | 3.84Mcps TDD. |
| maxnoofDLtsLCR | Maximum number of Downlink time slots per Radio Link for |
| | 1.28Mcps TDD. |

9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CFN | M | | 9.2.1.9 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | | | , , |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

9.1.24.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | J |
| UC-ID | M | | 9.2.1.71 | | YES | ignore |
| SAI | М | | 9.2.1.52 | | YES | ignore |
| Cell GAI | 0 | | 9.2.1.5A | | YES | ignore |
| C-RNTI | М | | 9.2.1.14 | | YES | ignore |
| S-RNTI | М | | 9.2.1.54 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| Propagation Delay | М | | 9.2.2.33 | | YES | ignore |
| STTD Support Indicator | М | | 9.2.2.45 | | YES | ignore |
| Closed Loop Mode1 Support Indicator | М | | 9.2.2.2 | | YES | ignore |
| Closed Loop Mode2 Support Indicator | М | | 9.2.2.3 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| URA Information | 0 | | 9.2.1.70B | | YES | ignore |
| Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| DPC Mode Change Support Indicator | 0 | | 9.2.2.56 | | YES | ignore |
| Common Transport Channel Resources Initialisation not required | 0 | | 9.2.1.12F | | YES | Ignore |
| Cell Capability Container FDD | 0 | | 9.2.2.D | | YES | ignore |
| SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

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9.1.24.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | ignore |
| UC-ID | M | | 9.2.1.71 | | YES | ignore |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| Cell GAI | 0 | | 9.2.1.5A | | YES | Ignore |
| C-RNTI | M | | 9.2.1.14 | | YES | ignore |
| S-RNTI | М | | 9.2.1.54 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| Rx Timing Deviation | M | | 9.2.3.7A | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| URA Information | 0 | | 9.2.1.70B | | YES | ignore |
| Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| Common Transport Channel Resources Initialisation ANot Required | 0 | | 9.2.1.12F | | YES | ignore |
| Cell Capability Container TDD | θ | | 9.2.3.1a | Applicable to 3.84Mcps TDD only | YES | ignore |
| Cell Capability Container TDD | <u>O</u> | | <u>9.2.3.1a</u> | Applicable to 3.84Mc ps TDD only | <u>YES</u> | ignore |
| Cell Capability Container TDD LCR | 0 | | 9.2.3.1b | Applicable to 1.28Mcps TDD only | YES | ignore |
| SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

9.1.24A GERAN UPLINK SIGNALLING TRANSFER INDICATION

| IE/Group Name | Presence | Range | IE type and | Semantics description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-------------|---|-------------|----------------------|
| | | | refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | - | |
| UC-ID | М | | 9.2.1.71 | UC-ID may | YES | ignore |
| | | | | be a GERAN cell identifier. | | |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| S-RNTI | M | | 9.2.1.54 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| L3 Information | М | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| URA Information | 0 | | 9.2.1.70B | URA information may be GRA information | YES | ignore |

9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------|----------|-------|-----------------------------|--------------------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| C-ID | M | | 9.2.1.6 | May be a GERAN cell identifier | YES | ignore |
| D-RNTI | M | | 9.2.1.24 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| D-RNTI Release Indication | M | | 9.2.1.25 | | YES | ignore |

9.1.26 RELOCATION COMMIT

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| RANAP Relocation Information | 0 | | 9.2.1.47 | | YES | ignore |

9.1.27 PAGING REQUEST

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|------------------------------|----------|-------|-----------|-------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | I | |
| CHOICE Paging Area | М | | | | YES | ignore |
| >URA | | | | | - | |
| >>URA-ID | М | | 9.2.1.70 | May be a | - | |
| | | | | GRA-ID. | | |
| >Cell | | | | UTRAN only | - | |
| >>C-ID | M | | 9.2.1.6 | | - | |
| SRNC-ID | М | | RNC-ID | May be a | YES | ignore |
| | | | 9.2.1.50 | BSC-ID. | | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| IMSI | М | | 9.2.1.31 | | YES | ignore |
| DRX Cycle Length Coefficient | M | | 9.2.1.26 | | YES | ignore |
| CN Originated Page to | | 01 | | | YES | ignore |
| Connected Mode UE | | | | | | |
| >Paging Cause | М | | 9.2.1.41E | | | |
| >CN Domain Type | М | | 9.2.1.11A | | _ | |
| >Paging Record Type | М | | 9.2.1.41F | | - | |

9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics | Criticality | Assigned |
|-----------------------------|----------|---|------------------------|-------------|-------------|-------------|
| | | | Reference | Description | | Criticality |
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | • |
| Measurement ID | М | | 9.2.1.37 | | YES | reject |
| CHOICE Dedicated | M | | | | YES | reject |
| Measurement Object Type | | | | | | , |
| >RL | | | | | _ | |
| >>RL Information | | 1 <maxn oofRLs></maxn | | | EACH | reject |
| >>>RL-ID | М | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | _ | |
| >>>HS-SICH | | 0 <maxn< td=""><td></td><td>TDD only</td><td>GLOBAL</td><td>reject</td></maxn<> | | TDD only | GLOBAL | reject |
| Information | | oofHSSI CHs> | | | | |
| >>>HS-SICH ID | M | | 9.2.3.3ad | | _ | |
| >RLS | | | | FDD only | _ | |
| >>RL Set Information | | 1 <maxn oofRLSet</maxn | | | EACH | reject |
| | | s> | | | | |
| >>>RL-Set-ID | M | | 9.2.2.35 | | _ | |
| >ALL RL | | | NULL | | ı | |
| >ALL RLS | | | NULL | FDD only | I | |
| Dedicated Measurement Type | M | | 9.2.1.18 | | YES | reject |
| Measurement Filter | 0 | | 9.2.1.36 | | YES | reject |
| Coefficient | | | | | | |
| Report Characteristics | M | | 9.2.1.48 | | YES | reject |
| CFN reporting indicator | М | | FN | | YES | reject |
| | | | reporting | | | |
| | | | indicator 9.2.1.28A | | | |
| CFN | 0 | | 9.2.1.9 | | YES | reject |
| Partial Reporting Indicator | 0 | | 9.2.1.41Fa | | YES | ignore |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs a measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets a measurement can be started |
| | on. |

9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|----------|---|-----------------------------|--|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | - |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Dedicated | 0 | | | Dedicated | YES | ignore |
| Measurement Object Type | | | | Measurement | | - |
| | | | | Object Type | | |
| | | | | the | | |
| | | | | measurement | | |
| | | | | was initiated | | |
| | | | | with | | |
| >RL or ALL RL | | | | | _ | |
| >>RL Information | | 1 <maxno< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxno<> | | | EACH | ignore |
| | | ofRLs> | | | | |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | _ | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | - | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | 1 | |
| >>>HS-SICH ID | 0 | | 9.2.3.3ad | TDD only | YES | reject |
| >RLS or ALL RLS | | | | FDD only | _ | |
| >>RL Set Information | | 1 <maxno ofRLSets></maxno | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>Dedicated Measurement Value | М | | 9.2.1.19 | | _ | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | Ignore |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started |
| | on. |

9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|------------------|--|--------------|----------------------|
| | | | Reference | Description | | Criticality |
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | 10,000 |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | М | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | 0 | | | Dedicated Measuremen t Object Type the measuremen t was initiated with | YES | ignore |
| >RL or ALL RL | | | | | _ | |
| >>Unsuccessful RL | | 1 <maxno< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxno<> | | | EACH | ignore |
| Information | | ofRLs> | | | | |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | _ | |
| >>Successful RL | | 0 <maxno< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxno<> | | | EACH | ignore |
| Information | | ofRLs-1> | | | | |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | | |
| >>>Dedicated Measurement Value | М | | 9.2.1.19 | | - | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | _ | |
| >>>HS-SICH ID | 0 | | 9.2.3.3ad | TDD only | <u>YES</u> | <u>reject</u> |
| >RLS or ALL RLS | | | | FDD only | _ | |
| >>Unsuccessful RL Set Information | | 1 <maxno ofrlsets=""></maxno> | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | ı | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | _ | |
| >>Successful RL Set Information | | 0 <maxno ofRLSets- 1></maxno | | | EACH | ignore |
| >>>RL Set ID | М | | 9.2.2.35 | | _ | |
| >>>Dedicated Measurement Value | М | | 9.2.1.19 | | _ | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started |
| | on. |

9.1.31 DEDICATED MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--------------------------------------|----------------|--|-------------|----------------------|
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | M | | | Dedicated Measuremen t Object Type the measuremen t was initiated with | YES | ignore |
| >RL or ALL RL | | | | | _ | |
| >>RL Information | | 1 <maxnoo fRLs></maxnoo | | | EACH | ignore |
| >>>RL-ID | M | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | - | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.19A | | 1 | |
| >>>HS-SICH ID | 0 | | 9.2.3.3ad | TDD only | YES | reject |
| >RLS or ALL RLS | | | | FDD only | ı | |
| >>RL Set Information | | 1 <maxnoo fRLSets></maxnoo | | | EACH | ignore |
| >>>RL Set ID | М | | 9.2.2.35 | | _ | |
| >>>Dedicated Measurement Value Information | М | | 9.2.1.19A | | - | |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started |
| | on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started on. |

9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |

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9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---------------------------------------|-----------------------------|--|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | 0 | | | Dedicated Measuremen t Object Type the measuremen t was initiated with | YES | ignore |
| >RL or ALL RL | | | | | _ | |
| >>Unsuccessful RL Information | | 1 <maxnoof RLs></maxnoof | | | EACH | ignore |
| >>>RL ID | М | | 9.2.1.49 | | _ | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | _ | |
| >RLS or ALL RLS | | | | FDD only | _ | |
| >>Unsuccessful RL Set Information | | 1 <maxnoof RLSets></maxnoof | | | EACH | ignore |
| >>>RL Set ID | М | | 9.2.2.35 | | _ | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | _ | |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started |
| | on. |

9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | - | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| D-RNTI | M | | 9.2.1.24 | | YES | ignore |

9.1.35 COMMON TRANSPORT CHANNEL RESOURCES REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------------|----------|-------|-----------------------------|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| D-RNTI | M | | 9.2.1.24 | | YES | reject |
| C-ID | 0 | | 9.2.1.6 | | YES | reject |
| Transport Bearer Request Indicator | М | | 9.2.1.61 | Request a new transport bearer or to use an existing bearer for the user plane. | YES | reject |
| Transport Bearer ID | M | | 9.2.1.60 | Indicates the lur transport bearer to be used for the user plane. | YES | reject |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |

9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

9.1.36.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| S-RNTI | М | | 9.2.1.53 | | YES | ignore |
| C-RNTI | 0 | | 9.2.1.14 | | YES | ignore |
| FACH Info for UE Selected S-CCPCH | | 1 | | | YES | ignore |
| >FACH Flow Control Information | М | | 9.2.1.26C | | YES | ignore |
| Transport Layer Address | 0 | | 9.2.1.62 | | YES | ignore |
| Binding Identity | 0 | | 9.2.1.3 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| C-ID | М | | 9.2.1.6 | | YES | ignore |

9.1.36.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|------------------------------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | 2000 | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| C-RNTI | 0 | | 9.2.1.14 | | YES | ignore |
| FACH Info for UE Selected S-CCPCHs | | 1 | | | YES | ignore |
| >FACH Flow Control Information | М | | 9.2.1.26C | | YES | ignore |
| Transport Layer Address | 0 | | 9.2.1.62 | | YES | ignore |
| Binding Identity | 0 | | 9.2.1.3 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| C-ID | M | | 9.2.1.6 | | YES | ignore |

9.1.37 COMMON TRANSPORT CHANNEL RESOURCES FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.38 COMPRESSED MODE COMMAND [FDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | _ |
| Active Pattern Sequence Information | M | | 9.2.2.A | | YES | ignore |

9.1.39 ERROR INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| Cause | 0 | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| S-RNTI | 0 | | 9.2.1.53 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |

9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|----------------------------|----------|-------|----------------|---|-------------|-------------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | ignore |
| Primary CCPCH RSCP | 0 | | 9.2.3.5 | | YES | ignore |

9.1.41 RADIO LINK PREEMPTION REQUIRED INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | ı | |
| RL Information | | 0 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| HS-DSCH MAC-d Flow Specific Information | | 0 <maxno ofMACdFl ows></maxno | | | EACH | ignore |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | - | |

| Range bound | Explanation | | | | |
|------------------|--|--|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE | | | | |
| maxnoofMACdFlows | Maximum number of HS-DSCH MAC-d flows | | | | |

9.1.42 RADIO LINK CONGESTION INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Congestion Cause | 0 | | 9.2.1.79 | | YES | ignore |
| RL Information | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DCH Rate Information | | 1 <maxno ofDCHs></maxno | | | EACH | ignore |
| >>DCH ID | М | | 9.2.1.16 | | | |
| >>Allowed Rate Information | 0 | | 9.2.1.2A | | _ | |

| Range bound | Explanation | | | | |
|-------------|--|--|--|--|--|
| maxnoofRLs | Maximum number of Radio Links for one UE | | | | |
| maxnoofDCHs | Maximum number of DCHs for one UE. | | | | |

9.1.43 COMMON MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|---|--------------------------------------|-------------|-------------------------|
| Message Type | М | 1 | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | 10,000 |
| Measurement ID | M | | 9.2.1.37 | | YES | reject |
| Moded of the L | | | 0.2.1.01 | | 120 | 10,000 |
| CHOICE Common Measurement Object Type | М | | | | YES | reject |
| >Cell | | | | | _ | |
| >>Reference Cell Identifier | M | | UTRAN Cell Identifier 9.2.1.71 | May be a GERAN Cell Identifier | _ | |
| >>Time Slot | 0 | | 9.2.1.56 | 3.84Mcps TDD only | _ | |
| >>Time Slot LCR | 0 | | 9.2.3.12a | 1.28Mcps TDD only | - | |
| >>Neighbouring Cell Measurement Information | | 0 <maxnoof MeasNCells ></maxnoof | | UTRAN only | _ | |
| >>>CHOICE Neighbouring Cell Measurement Information | | | | | - | |
| >>>> Neighbouring FDD Cell Measurement Information | | | | FDD only | _ | |
| >>>> Neighbouring FDD Cell Measurement Information | M | | 9.2.1.41G | | _ | |
| >>>> Neighbouring TDD Cell Measurement Information | | | | 3.84Mcps TDD only | _ | |
| >>>> Neighbouring TDD Cell Measurement Information | М | | 9.2.1.41H | | _ | |
| >>>> Neighbouring TDD Cell Measurement InformationLCR | | | | 1.28Mcps TDD only | | |
| >>>> Neighbouring TDD Cell Measurement InformationLC R | M | | 9.2.1.41Dd | | - | |
| Common Measurement Type | М | | 9.2.1.12C | | YES | reject |
| Measurement Filter Coefficient | 0 | | 9.2.1.41 | UTRAN only | YES | reject |
| Report Characteristics | М | 1 | 9.2.1.48 | | YES | reject |
| SFN reporting indicator | M | | FN reporting indicator | | YES | reject |

| | | 9.2.1.28A | | | |
|--------------------|---|-----------|------------|-----|--------|
| SFN | 0 | 9.2.1.52A | UTRAN only | YES | reject |
| Common Measurement | 0 | 9.2.1.12A | UTRAN only | YES | reject |
| Accuracy | | | | | |

| Range bound | Explanation |
|------------------|---|
| maxnoofMeasNCell | Maximum number of neighbouring cells on which |
| | measurements can be performed. |

9.1.44 COMMON MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--|---|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Common Measurement Object Type | 0 | | | Common Measuremen t Object Type that the measuremen t was initiated with. | YES | ignore |
| >Cell | | | | | - | |
| >>Common Measurement value | M | | 9.2.1.12D | | ı | |
| SFN | 0 | | 9.2.1.52A | Common Measuremen t Time Reference, UTRAN only. | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| Common Measurement Achieved Accuracy | 0 | | Common Measurem ent Accuracy 9.2.1.12A | UTRAN only | YES | reject |

9.1.45 COMMON MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------|----------|-------|------------|-------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.46 COMMON MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|-----------------------------|---|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Common Measurement Object Type | М | | | Common Measuremen t Object Type that the measuremen t was initiated with. | YES | ignore |
| >Cell | | | | | ı | |
| >>Common Measurement Value Information | M | | 9.2.1.12E | | 1 | |
| SFN | 0 | | 9.2.1.52A | Common Measuremen t Time Reference, UTRAN only. | YES | ignore |

9.1.47 COMMON MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | М | | 9.2.1.37 | | YES | ignore |

9.1.48 COMMON MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Measurement ID | М | | 9.2.1.37 | | YES | ignore |
| Cause | М | | 9.2.1.5 | | YES | ignore |

9.1.49 INFORMATION EXCHANGE INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|----------------|--------------------------------------|-------------|-------------------------|
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | reject |
| CHOICE Information Exchange Object Type | M | | | | YES | reject |
| >Cell | | | | | - | |
| >>C-ID | M | | 9.2.1.6 | May be a GERAN cell identifier | I | |
| Information Type | M | | 9.2.1.31E | | YES | reject |
| Information Report Characteristics | M | | 9.2.1.31C | | YES | reject |

9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| CHOICE Information Exchange Object Type | 0 | | | | YES | ignore |
| >Cell | | | | | - | |
| >>Requested Data Value | M | | 9.2.1.48A | | - | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.51 INFORMATION EXCHANGE INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-------------|--------------------------|-------------|----------------------|
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.52 INFORMATION REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| CHOICE Information Exchange Object Type | М | | | | YES | ignore |
| >Cell | | | | | ı | |
| >>Requested Data Value Information | M | | 9.2.1.48B | | _ | |

9.1.53 INFORMATION EXCHANGE TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |

9.1.54 INFORMATION EXCHANGE FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |

9.1.55 RESET REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantic Descripti on | Criticality | Assigned Criticality |
|-----------------------------|----------|--|-----------------------------|--------------------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| RNC-ID | М | | 9.2.1.50 | Identity of the sending RNC | YES | reject |
| CHOICE Reset Indicator | M | | | | YES | reject |
| >Context | | | | | _ | |
| >>Context Information | | 1 <maxre setContext ></maxre | | | EACH | reject |
| >>>CHOICE Context Type | M | | | | ı | |
| >>>SRNTI | | | | | _ | |
| >>>>S-RNTI | M | | 9.2.1.53 | | _ | |
| >>>DRNTI | | | | | _ | |
| >>>>D-RNTI | M | | 9.2.1.24 | | _ | |
| >All Contexts | | | NULL | | _ | |
| >Context Group | | | | | _ | |
| >>Context Group Information | | 1 <maxre setContext Groups></maxre | | | EACH | reject |
| >>>S-RNTI Group | М | | 9.2.1.53a | | - | |

| Range bound | Explanation |
|-----------------------|--|
| maxResetContext | Maximum number of contexts that can be reset by |
| | one RESET message. |
| maxResetContextGroups | Maximum number of context groups that can be reset |
| | by one RESET message. |

9.1.56 RESET RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| RNC-ID | М | | 9.2.1.50 | Identity of the sending RNC | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.57 RADIO LINK ACTIVATION COMMAND

9.1.57.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------|----------|---|--------------------------|--------------------------|-------------|----------------------|
| Message Type | М | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | _ | |
| Delayed activation | | 1 <maxnoofrl< td=""><td></td><td></td><td>EACH</td><td>reject</td></maxnoofrl<> | | | EACH | reject |
| Information | | S> | | | | |
| >RL ID | M | | 9.2.1.49 | | - | |
| >Delayed Activation | М | | 9.2.1.19Ab | | - | |
| Update | | | | | | |

9.1.57.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------|----------|---|--------------------------|--------------------------|-------------|----------------------|
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | _ | |
| Delayed activation | | 1 <maxnoofrl< td=""><td></td><td></td><td>EACH</td><td>reject</td></maxnoofrl<> | | | EACH | reject |
| Information | | S> | | | | |
| >RL ID | M | | 9.2.1.49 | | - | |
| >Delayed Activation | M | | 9.2.1.19Ab | | - | |
| Update | | | | | | |

9.1.58 RADIO LINK PARAMETER UPDATE INDICATION

9.1.58.1 FDD Message

| IE/Group name | Presence | Range | IE Type and | Semantic Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|-------------------------------------|-------------|-------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| HS-DSCH FDD Update Information | 0 | | 9.2.2.19c | | YES | reject |
| RL Information | | 0 <max noofRLs ></max | | | EACH | reject |
| >RL ld | M | | 9.2.1.49 | | _ | |
| >Phase Reference Update Indicator | 0 | | 9.2.2.27B | | _ | |

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9.1.58.2 TDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|--------------------------------|----------|-------|-----------------------------|-------------------------|-------------|-------------------------|
| Message type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | - |
| HS-DSCH TDD Update Information | 0 | | 9.2.3.3ac | | YES | reject |

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the RNSAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is a contradiction between the tabular format in subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise

requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible. See Annex A.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|---|---|
| Priority Level | M | | INTEGER(0. .15) | This IE indicates the priority of the request. Usage: Value "0" means "Spare"; It shall be treated as a logical error if received. Values between 1 and 14 are ordered in decreasing order of priority, '1' being the highest and '14' the lowest. Value "15" means "No Priority". |
| Pre-emption Capability | M | | ENUMERAT ED(shall not trigger pre- emption, may trigger pre-emption) | |
| Pre-emption Vulnerability | M | | ENUMERAT ED(not pre- emptable, pre- emptable) | |

9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|-----------------------|
| Allowed Queuing Time | | | INTEGER(1. | Unit: Seconds |
| | | | .60) | |

9.2.1.2A Allowed Rate Information

The *Allowed Rate Information* IE indicates the TFI corresponding to the highest allowed bit rate for the uplink and/or the downlink of a DCH. The SRNC is allowed to use any rate being lower than or equal to the rate corresponding to the indicated TFI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|---------------------------|---|
| Allowed UL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |
| Allowed DL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |

9.2.1.2B Altitude and Direction

This IE contains a description of Altitude and Direction.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|----------------------------------|---|
| Direction of Altitude | M | | ENUMERAT ED(Height, Depth) | |
| Altitude | М | | INTEGER(02 ¹⁵ -1) | The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <n+1, except="" for="" n="2<sup">15-1 for which the range is extended to include all grater values of (a).</n+1,> |

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9.2.1.2C Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| Antenna Co-location | | | ENUMERAT | |
| Indicator | | | ED(co- | |
| | | | located,) | |

9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|--|
| Binding ID | | | OCTET STRING (14,) | If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID. |

9.2.1.4 **BLER**

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel . BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------------|
| BLER | | | INTEGER(- | Step 0.1. (Range –6.30). |
| | | | 630) | It is the Log10 of the BLER |

9.2.1.4A Block STTD Indicator

Void.

9.2.1.4B Burst Mode Parameters

The Burst Mode Parameters IE provides all the relevant information in order to able IPDL in the Burst mode.

| IE/Group name | Presence | Range | IE Type and | Semantics Description |
|---------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| Burst Start | M | | INTEGER(0. | See [10] and [22] |
| | | | .15) | |
| Burst Length | M | | INTEGER(1 | See [10] and [22] |
| | | | 025) | |
| Burst freq | M | | INTEGER(1. | See [10] and [22] |
| | | | .16) | |

9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|---|--------------------------|
| CHOICE Cause Group | | | | |
| >Radio Network Layer | | | | |
| >Radio Network Layer >>Racio Network Layer Cause | M | | ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, Measurement not Supported For The Object, Combining Resources Not Available, Combining Resources Not Available, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not Elapsed, Number of DL Codes Not Supported, Dedicated Transport Channel Type not Supported, UL Shared Channel Type not Supported, UL Shared Channel Type not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, CM not Supported, Transaction not Supported by Destination Node B, RL Already Activated/Allocated,, Number of UL Codes Not Supported, Cell reserved for operator use, DPC Mode Change not Supported, Information temporarily not available, Information Provision not Supported, Power Balancing status not compatible, Delayed Activation not Supported, RL Timing Adjustment Not Supported, RL Timing Adjustment Not Supported, | |
| >Transport Layer | | | | |
| >>Transport Layer Cause | M | | ENUMERATED (Transport Resource Unavailable, Unspecified,) | |
| >Protocol | | | , | |
| >>Protocol Cause | M | | ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified, Abstract Syntax Error (Falsely Constructed Message),) | |
| >Misc | | | | |
| >>Miscellaneous Cause | M | | ENUMERATED (Control Processing Overload, Hardware Failure, O&M Intervention, | |

| | Not enough User Plane Processing | |
|--|----------------------------------|--|
| | Resources, | |
| | Unspecified,) | |

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

| Cell not Available Cell reserved for operator use Combining not Supported The DRNS does not support the RL combining for the concerned cells Combining Resources Not Available Common Transport Channel Type not Supported Dedicated Transport Channel Type not Supported Delayed Activation not Supported DL SF not Supported DL SF not Supported DPC Mode Change not Supported DPC Mode Change not Supported The concerned cell(s) do not support the Percentage and the concerned cell(s) do not support the Delayed Activation not Supported DPC Mode Change not Supported The concerned cell(s) do not support the Dedicated Transport Channel Type The concerned cell(s) do not support the Dedicated Transport Channel Type The concerned cell(s) do not support the Dedicated Transport Channel Type The concerned cell(s) do not support the Devandink Shared Channel Type The concerned cell(s) do not support the Devandink Shared Channel Type The concerned cell(s) do not support the requested DL SF The Concerned cell(s) do not support the DPC mode changes The RNS doesn't support provision of the requested information for the concerned cell(s) consider the requested information of the supported The RNS can temporarily not provide the requested measurement on the concerned cell(s) does not support the requested measurement on the concerned cell(s) does not support the requested measurement on the concerned cell(s) do not support the requested measurement on the concerned cell(s) does not support the requested measurement on the concerned cell(s) do not support the requested measurement on the concerned cell(s) does not support the requested measurement on the concerned cell(s) does not support the requested number of DL codes Supported The Concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Suppor | Radio Network Layer cause | Meaning |
|--|----------------------------------|---|
| The DRNS does not support the RL combining for the concerned cells | Cell not Available | The concerned cell is not available |
| Combining Resources Not Available CM not Supported Common Transport Channel Type not Supported Dedicated Transport Channel Type not Supported Delayed Activation not Supported DL Radio Resources not Available DL Safor Supported DL Radio Resources not Available DL Shared Channel Type not Supported DPC Mode Change not Supported DPC Mode Change not Supported DPC Mode Change not Supported Information Provision not Supported DPC Mode Change not Supported Information temporarily not available Invalid CM Settings Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of DL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Requested Cn Durbs and requested Cn ID Promation The Concerned cell(s) do not support the DPC mode changes The concerned cell(s) do not support the DPC mode changes The RNS can temporarily not provision of the requested information for the concerned cell(s) consider the requested information for the concerned cell(s) consider the requested Compressed Mode The Concerned cell(s) consider the requested Compressed Mode The Concerned cell(s) do not support the PPC mode changes The RNS can temporarily not provide the requested measurement value Available The DRNS can temporarily not provide the requested measurement value Available The Concerned cell(s) do not support the requested measurement value Available The Concerned cell(s) do not support the requested number of DL codes The concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL cod | Cell reserved for operator use | The concerned cell is reserved for operator use |
| Combining Resources Not Available CM not Supported Common Transport Channel Type not Supported Dedicated Transport Channel Type not Supported Delayed Activation not Supported DL Radio Resources not Available DL Safor Supported DL Radio Resources not Available DL Shared Channel Type not Supported DPC Mode Change not Supported DPC Mode Change not Supported DPC Mode Change not Supported Information Provision not Supported DPC Mode Change not Supported Information temporarily not available Invalid CM Settings Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of DL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Requested Cn Durbs and requested Cn ID Promation The Concerned cell(s) do not support the DPC mode changes The concerned cell(s) do not support the DPC mode changes The RNS can temporarily not provision of the requested information for the concerned cell(s) consider the requested information for the concerned cell(s) consider the requested Compressed Mode The Concerned cell(s) consider the requested Compressed Mode The Concerned cell(s) do not support the PPC mode changes The RNS can temporarily not provide the requested measurement value Available The DRNS can temporarily not provide the requested measurement value Available The Concerned cell(s) do not support the requested measurement value Available The Concerned cell(s) do not support the requested number of DL codes The concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL codes The Concerned cell(s) do not support the requested number of DL cod | Combining not Supported | The DRNS does not support the RL combining for the concerned cells |
| CM not Supported Common Transport Channel Type not Supported CPCH Common Transport Channel Type not Supported Dedicated Transport Channel Type not Supported Delayed Activation not Supported The concerned cell(s) do not support the Dedicated Transport Channel Type Delayed Activation not Supported DL Radio Resources not Available DL SP not Supported DL Shared Channel Type The concerned cell(s) do not support delayed activation of RLs The DRNS does not have sufficient DL radio resources available DL SP not Supported The concerned cell(s) do not support the Dedicated Transport Channel Type Supported DL Shared Channel Type The concerned cell(s) do not support the Deventink Shared Channel Type Supported The concerned cell(s) do not support the Deventink Shared Channel Type Supported The concerned cell(s) do not support the Downlink Shared Channel Type Supported The concerned cell(s) do not support the DPC mode changes Information Provision not supported for the object Information temporarily not available Invalid CM Settings The concerned cell(s) consider the requested information for the concerned object types The RNS can temporarily not provide the requested Compressed Mode settings invalid Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported The concerned cell(s) do not support the requested measurement value Available The Concerned cell(s) do not support the requested number of DL codes Supported The Concerned cell(s) do not support the requested number of UL codes Supported The Concerned cell(s) do not support the requested number of UL codes Supported The Concerned cell(s) do not support the requested number of UL codes Supported The Concerned cell(s) do not support the requested number of UL codes Supported The Concerned cell(s) do not support the requested number of UL codes Supported The Concerned cell(s) do not support the requested reconfiguration The concerned cell(s) do not support the requested configuration i.e. | | The value of the received <i>Diversity Control Field</i> IE was set to 'Must', |
| Common Transport Channel Type not Supported CPCH Common Transport Channel Type Dedicated Transport Channel Type The concerned cell(s) do not support the PACH and/or FACH and/or EPCH Common Transport Channel Type not Supported Transport Channel Type The concerned cell(s) do not support the Dedicated Transport Channel Type Delayed Activation not Supported The concerned cell(s) do not support delayed activation of RLs DL Radio Resources not Available The Concerned cell(s) do not support the requested DL SF DL Shared Channel Type not Supported The concerned cell(s) do not support the Downlink Shared Channel Type DPC Mode Change not Supported The concerned cell(s) do not support the Downlink Shared Channel Type DPC Mode Change not Supported The concerned cell(s) do not support the DPC mode changes Information Provision not supported for the object Concerned cell(s) do not support provision of the requested information for the concerned object types The RNS can temporarily not provide the requested information available Invalid CM Settings The Concerned cell(s) consider the requested Compressed Mode settings invalid Measurement not Supported For The Object Measurement Temporarily not Available The DRNS can temporarily not provide the requested measurement value Available The DRNS can temporarily not provide the requested measurement value Available The Concerned cell(s) do not support the requested number of DL codes Supported The Concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support the requested reconfiguration The concerned cell(s) do not support the requested configuration i.e. The concerned cell(s) do not support the requested configurati | Available | but the DRNS cannot perform the requested combining |
| Dedicated Transport Channel Type Dedicated Transport Channel Type Delayed Activation not Supported DL Radio Resources not Available DL SF not Supported DL SF not Supported The concerned cell(s) do not support delayed activation of RLs DL SF not Supported DL SF not Supported The concerned cell(s) do not support the Development of the concerned cell(s) do not support the Downlink Shared Channel Type not Supported DPC Mode Change not Supported Information Provision not supported for the object Information temporarily not available Invalid CM Settings The Concerned cell(s) do not support the DPC mode changes Information temporarily not available Invalid CM Settings The RNS doesn't support provision of the requested information for the concerned object types The RNS can temporarily not provide the requested Compressed Mode settings invalid At least one of the concerned cell(s) does not support the requested measurement value Available Number of DL Codes not Supported Number of UL Codes not Supported Power Level not Supported Power Level not Supported Power Balancing status not compatible RL Timing Adjustment not Supported Reconfiguration CFN not Elapsed Reconfiguration Telapsed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed RL Already Activated/ Allocated The DRNS has already allocated an RL with the requested RL ID for this mode. | CM not Supported | The concerned cell(s) do not support Compressed Mode |
| Dedicated Transport Channel Type not Supported Delayed Activation not Supported DL Radio Resources not Available DL Sh not Supported The concerned cell(s) do not support delayed activation of RLs DL Shared Channel Type not Supported DL Shared Channel Type not Supported DPC Mode Change not Supported The concerned cell(s) do not support the Downlink Shared Channel Type Supported DPC Mode Change not Supported The concerned cell(s) do not support the DPC mode changes Information Provision not supported for the object Information temporarily not available Invalid CM Settings The concerned cell(s) consider the requested information for the concerned cell(s) consider the requested Compressed Mode settings invalid Measurement to Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Power Level not Supported Power Level not Supported Reconfiguration CFN not Elapsed Reconfiguration CFN not Elapsed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Requested Tx Diversity mode not Supported Requested Tx Diversity mode not Supported Reconcerned Cell(s) do not support the Devaluation of RLs The concerned cell(s) do not support the power balancing status in the concerned cell(s) do not support the power balancing status in the SRNC is not compatible with that of the DRNC. The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet clapsed Reconfiguration not Allowed Requested Tx Diversity mode not Supported The Concerned cell(s) do not support the requested transmit diversity mode The DRNS has already allocated an RL with the requested RL ID for thi | Common Transport Channel Type | The concerned cell(s) do not support the RACH and/or FACH and/or |
| Delayed Activation not Supported Delayed Activation not Supported DL Radio Resources not Available DL SF not Supported The concerned cell(s) do not support the requested DL SF DL Shared Channel Type not Supported DPC Mode Change not Supported Information Provision not supported for the object Information temporarily not available Invalid CM Settings The RNS can temporarily not provide the requested information available Invalid CM Settings The concerned cell(s) consider the requested Compressed Mode settings invalid Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of DL Codes not Supported Power Level not Supported Reconfiguration CFN not Elapsed Reconfiguration Tot Allowed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Requested Configuration not Supported Requested Tx Diversity mode not Supported Requested Tx Diversity mode not Supported Real Timp DRNS has already allocated an RL with the requested RL ID for thi | not Supported | |
| Delayed Activation not Supported DL Radio Resources not Available DL SF not Supported The concerned cell(s) do not support delayed activation of RLs DL SF not Supported The concerned cell(s) do not support the requested DL SF DL Shared Channel Type not Supported DPC Mode Change not Supported The concerned cell(s) do not support the DPC mode channel Type Supported DPC Mode Change not Supported The concerned cells do not support the DPC mode changes Information Provision not supported for the object Information temporarily not available Invalid CM Settings The RNS can temporarily not provide the requested information Measurement not Supported For The Object Measurement Temporarily not Available Measurement Te | Dedicated Transport Channel Type | The concerned cell(s) do not support the Dedicated Transport Channel |
| DL Radio Resources not Available DL SF not Supported The concerned cell(s) do not support the requested DL SF The concerned cell(s) do not support the pownlink Shared Channel Type Supported The concerned cell(s) do not support the Downlink Shared Channel Type Supported The concerned cell(s) do not support the DPC mode changes Information Provision not supported for the object Information temporarily not available Invalid CM Settings The concerned cell(s) consider the requested information Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported Power Level not Supported Power Balancing status not compatible Reconfiguration CFN not Elapsed Reconfiguration not Allowed Reconfiguration not Allowed Requested Tx Diversity mode not Supported Requested Tx Diversity mode not Supported Requested Tx Diversity mode Requested Tx Diversity mode The DRNS has already allocated The DRNS has already allocated an RL with the requested Rannel Type The concerned cell(s) do not support the DPC mode changes The concerned cell sport support the PPC mode changes The concerned cell(s) consider the requested information for the concerned object types The RNS can temporarily not provide the requested Mode settings invalid At least one of the concerned cell(s) dose not support the requested measurement value At least one of the concerned cell(s) do not support the requested number of DL codes Supported The concerned cell(s) do not support adjustments of the RL timing The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed The SRNC does currently not allow the requested reconfiguration The concerned cell(s) do not support the requested transmit diversity mode The DRNS has already allocated an RL with the requested RL ID for thi | not Supported | |
| DL SF not Supported DL Shared Channel Type not Supported DPC Mode Change not Supported Information Provision not supported The concerned cells do not support the DPC mode changes Information Provision not supported for the object Information temporarily not available Invalid CM Settings The concerned cells (s) do not support the DPC mode changes The RNS doesn't support provision of the requested information for the concerned object types Information temporarily not available Invalid CM Settings The concerned cells (s) consider the requested Compressed Mode settings invalid Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Power Level not Supported Power Balancing status not compatible RE Timing Adjustment not Supported Reconfiguration CFN not Elapsed Reconfiguration not Allowed Reconfiguration not Allowed Reconfiguration not Allowed Requested Configuration not Supported Requested Tx Diversity mode not Supported Re A L Already Activated/ Allocated The DRNS has already allocated an RL with the requested RL ID for thi | Delayed Activation not Supported | The concerned cell(s) do not support delayed activation of RLs |
| DL Shared Channel Type not Supported Supported Information Provision not support for the object Information temporarily not available Invalid CM Settings Invalid CM S | DL Radio Resources not Available | The DRNS does not have sufficient DL radio resources available |
| Supported DPC Mode Change not Supported The concerned cells do not support the DPC mode changes Information Provision not supported for the object Information temporarily not available Invalid CM Settings The concerned cell(s) consider the requested information Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported The concerned cell(s) do not support the requested number of UL codes Supported A DL power level was requested which the concerned cell(s) do not support the requested number of UL codes Supported The power balancing status in the SRNC is not compatible with that of the DRNC. The concerned cell(s) do not support adjustments of the RL timing Supported Reconfiguration CFN not Elapsed Reconfiguration not Allowed Requested Configuration not Supported Requested Configuration not Supported Requested Tx Diversity mode not Supported Requested Tx Diversity mode Requested Tx Diversity mode The DRNS has already allocated an RL with the requested RL ID for thi | DL SF not Supported | The concerned cell(s) do not support the requested DL SF |
| Information Provision not supported for the object Information temporarily not available Invalid CM Settings Invalid Compressed Mode Support the requested number of DL Codes Supported Invalid Compressed Mode Settings Invalid Compressed Mode Suterings Invalid | | The concerned cell(s) do not support the Downlink Shared Channel Type |
| Information Provision not supported for the object Information temporarily not available Invalid CM Settings Invalid Compressed Mode Support the requested number of DL Codes Supported Invalid Compressed Mode Settings Invalid Compressed Mode Suterings Invalid | DPC Mode Change not Supported | The concerned cells do not support the DPC mode changes |
| Information temporarily not available Invalid CM Settings The concerned cell(s) consider the requested Compressed Mode settings invalid Measurement not Supported For The Object Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported Number alancing status not compatible Power Balancing status not compatible Reconfiguration CFN not Elapsed Reconfiguration not Allowed Reconfiguration not Allowed Requested Configuration not Supported Requested Tx Diversity mode not Supported The RNS can temporarily not provide the requested measurement value and the concerned cell(s) do not support the requested number of DL codes not support the requested number of UL codes not support adjustment of the DRNC. The power balancing status in the SRNC is not compatible with that of the DRNC. The concerned cell(s) do not support adjustments of the RL timing The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed Requested Tx Diversity mode not Supported Rel Already Activated/ Allocated The DRNS has already allocated an RL with the requested RL ID for this provide the requested Compact of the Concerned CRI (s) do not support the requested RL ID for this power levels, Transport Formats, physical channel parameters, | | The RNS doesn't support provision of the requested information for the |
| available Invalid CM Settings The concerned cell(s) consider the requested Compressed Mode settings invalid At least one of the concerned cell(s) does not support the requested measurement on the concerned object type Measurement Temporarily not Available Number of DL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported Number of UL Codes not Supported A DL power level was requested which the concerned cell(s) do not support Power Balancing status not compatible RL Timing Adjustment not Supported Reconfiguration CFN not Elapsed Reconfiguration not Allowed Requested Configuration not Supported Requested Configuration not Supported Requested Tx Diversity mode not Supported The concerned cell(s) do not support adjustments of the RL timing The concerned cell(s) do not support adjustments of the RL timing The concerned cell(s) do not support adjustments of the RL timing The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed The SRNC does currently not allow the requested reconfiguration The concerned cell(s) do not support the requested configuration The concerned cell(s) do not support the requested configuration The concerned cell(s) do not support the requested reconfiguration The concerned cell(s) do not support the requested configuration The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters, The Concerned cell(s) do not support the requested transmit diversity mode The DRNS has already allocated an RL with the requested RL ID for this | supported for the object | concerned object types |
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| Power Level not Supported Power Balancing status not compatible RL Timing Adjustment not Supported Reconfiguration CFN not Elapsed Reconfiguration not Allowed Reconfiguration not Allowed Requested Configuration not Supported Requested Tx Diversity mode RL Already Activated/ Allocated RD DL power level was requested which the concerned cell(s) do not support adjustments of the RL timing status in the SRNC is not compatible with that of the DRNC. The power balancing status in the SRNC is not compatible with that of the DRNC. The concerned cell(s) do not support adjustments of the RL timing supported The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed The SRNC does currently not allow the requested reconfiguration The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters, The concerned cell(s) do not support the requested transmit diversity mode The DRNS has already allocated an RL with the requested RL ID for this | | The concerned cell(s) do not support the requested number of UL codes |
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| compatible the DRNC. RL Timing Adjustment not Supported Reconfiguration CFN not Elapsed Reconfiguration not Allowed Reconfiguration not Allowed Requested Configuration not Supported Requested Tx Diversity mode RL Already Activated/ Allocated The concerned cell(s) do not support adjustments of the RL timing The requested action cannot be performed due to that a COMMIT message was received previously, but the concerned CFN has not yet elapsed The SRNC does currently not allow the requested reconfiguration The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters, The concerned cell(s) do not support the requested transmit diversity mode RL Already Activated/ Allocated The DRNS has already allocated an RL with the requested RL ID for this | Power Level not Supported | |
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| Supportedpower levels, Transport Formats, physical channel parameters,Requested Tx Diversity mode not SupportedThe concerned cell(s) do not support the requested transmit diversity modeRL Already Activated/ AllocatedThe DRNS has already allocated an RL with the requested RL ID for this | Reconfiguration not Allowed | The SRNC does currently not allow the requested reconfiguration |
| Requested Tx Diversity mode not Supported RL Already Activated/ Allocated The concerned cell(s) do not support the requested transmit diversity mode The DRNS has already allocated an RL with the requested RL ID for this | Requested Configuration not | The concerned cell(s) do not support the requested configuration i.e. |
| Supported mode RL Already Activated/ Allocated The DRNS has already allocated an RL with the requested RL ID for thi | Supported | |
| Supported mode RL Already Activated/ Allocated The DRNS has already allocated an RL with the requested RL ID for thi | Requested Tx Diversity mode not | |
| · · · · · · · · · · · · · · · · · · · | | |
| <u> </u> | RL Already Activated/ Allocated | The DRNS has already allocated an RL with the requested RL ID for this UE Context |
| Synchronisation Failure Loss of UL Uu synchronisation | Synchronisation Failure | |

| Transaction not Supported by | The requested action cannot be performed due to lack of support of the |
|----------------------------------|---|
| Destination Node B | corresponding action in the destination Node B |
| UL Radio Resources not Available | The DRNS does not have sufficient UL radio resources available |
| UL Scrambling Code Already in | The concerned UL scrambling code is already in use for another UE |
| Use | |
| UL SF not Supported | The concerned cell(s) do not support the requested minimum UL SF |
| UL Shared Channel Type not | The concerned cell(s) do not support the Uplink Shared Channel Type |
| Supported | |
| Unknown C-ID | The DRNS is not aware of a cell with the provided C-ID |
| Unknown RNTI | The SRNC or DRNC is not aware of a UE indicated with the provided |
| | RNTI |
| Unspecified | Sent when none of the above cause values applies but still the cause is |
| | Radio Network Layer related |

| Transport Network Layer cause | Meaning |
|--------------------------------|---|
| Transport resource unavailable | The required transport resources are not available |
| Unspecified | Sent when none of the above cause values applies but still the cause is |
| | Transport Network Layer related |

| Protocol cause | Meaning |
|-----------------------------------|--|
| Abstract Syntax Error (Reject) | The received message included an abstract syntax error and the |
| | concerned criticality indicated "reject" (see subclause 10.3) |
| Abstract Syntax Error (Ignore and | The received message included an abstract syntax error and the |
| Notify) | concerned criticality indicated "ignore and notify" (see subclause 10.3) |
| Abstract syntax error (falsely | The received message contained IEs or IE groups in wrong order or with |
| constructed message) | too many occurrences (see subclause 10.3) |
| Message not Compatible with | The received message was not compatible with the receiver state (see |
| Receiver State | subclause 10.4) |
| Semantic Error | The received message included a semantic error (see subclause 10.4) |
| Transfer Syntax Error | The received message included a transfer syntax error (see subclause |
| | 10.2) |
| Unspecified | Sent when none of the above cause values applies but still the cause is |
| | Protocol related |

| Miscellaneous cause | Meaning |
|----------------------------------|---|
| Control Processing Overload | DRNS control processing overload |
| Hardware Failure | DRNS hardware failure |
| Not enough User Plane Processing | DRNS has insufficient user plane processing resources available |
| Resources | |
| O&M Intervention | Operation and Maintenance intervention related to DRNS equipment |
| Unspecified | Sent when none of the above cause values applies and the cause is not related to any of the categories Radio Network Layer, Transport Network |
| | Layer or Protocol. |

9.2.1.5A Cell Geographical Area Identity (Cell GAI)

The Cell Geographical Area is used to identify the geographical area of a cell. The area is represented as a polygon. See ref. [25].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------------|----------|--------------------------------------|--|--|
| Cell GAI Geographical Co-ordinates | | 1 <maxnoofpoints></maxnoofpoints> | | |
| >Latitude Sign | М | | ENUMERAT ED(North, South) | |
| >Degrees of Latitude | М | | INTEGER(02 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°) |
| >Degrees of Longitude | М | | INTEGER(-2 ²³ 2 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°) |

| Range bound | Explanation |
|---------------|-----------------------------------|
| maxnoofPoints | Maximum no. of points in polygon. |

9.2.1.5B Cell Geographical Area Additional Shapes (Cell GAI Additional Shapes)

This IE is used to provide several descriptions of the geographical area of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-------------------------------|
| CHOICE Cell GAI | | | | |
| Additional Shapes | | | | |
| >GA Point With | | | | |
| Uncertainty | | | | |
| >>GA Point With | M | | 9.2.1.30A | Ellipsoid point with |
| Uncertainty | | | | uncertainty circle |
| >GA Ellipsoid point | | | | |
| with uncertainty Ellipse | | | | |
| >>GA Ellipsoid | M | | 9.2.1.30B | Ellipsoid point with |
| point with uncertainty | | | | uncertainty Ellipse |
| Ellipse | | | | |
| >GA Ellipsoid point | | | | |
| with altitude | | | | |
| >>GA Ellipsoid | M | | 9.2.1.30C | Ellipsoid point with altitude |
| point with altitude | | | | |
| >GA Ellipsoid point | | | | |
| with altitude and | | | | |
| uncertainty Ellipsoid | | | | |
| >>GA Ellipsoid | M | | 9.2.1.30D | Ellipsoid point with altitude |
| point with altitude | | | | and uncertainty Ellipsoid |
| and uncertainty | | | | |
| Ellipsoid | | | | |
| >GA Ellipsoid Arc | | | | |
| >>GA Ellipsoid Arc | M | | 9.2.1.30E | Ellipsoid Arc |

9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. *Cell Capacity Class Value* IE is the value that classifies the cell capacity with regards to the other cells. *Cell Capacity Class Value* IE only indicates resources that are configured for traffic purposes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------------|----------|-------|-----------------------|--|
| Uplink Cell Capacity Class Value | M | | INTEGER(1100,) | Value 1 shall indicate the minimum uplink cell capacity, and 100 shall indicate the maximum uplink cell capacity. There should be linear relation between uplink cell capacity and Uplink Cell Capacity Class Value. |
| Downlink Cell Capacity Class Value | M | | INTEGER(1100,) | Value 1 shall indicate the minimum downlink cell capacity, and 100 shall indicate the maximum downlink cell capacity. There should be linear relation between downlink cell capacity and Downlink Cell Capacity Class Value. |

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9.2.1.6 Cell Identifier (C-ID)

The C-ID (Cell Identifier) is the identifier of a cell in one RNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| C-ID | | | INTEGER | |
| | | | (065535) | |

9.2.1.7 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a Primary-CPICH[FDD]/ Primary-CCPCH[TDD] or for GSM Carrier RSSI according to [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------------|---|
| Cell Individual Offset | | | INTEGER(-20+20) | -20 -> -10dB -19 -> -9.5dB +20 -> +10dB |
| | | | | |

9.2.1.8 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|--------------------------|-----------------------|
| Cell Parameter ID | | | INTEGER(0127,) | |

9.2.1.9 **CFN**

Connection Frame Number for the radio connection, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| CFN | | | INTEGER(0. | |
| | | | . 255) | |

9.2.1.10 CFN Offset

Void

9.2.1.11 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |

9.2.1.11A CN Domain Type

Identifies the type of core network domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| CN Domain Type | | | ENUMERAT | See in [16] |
| | | | ED(CS | |
| | | | domain, PS | |
| | | | domain, | |
| | | | Don't | |
| | | | care,) | |

9.2.1.12 CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| RAC | M | | OCTET STRING (1) | |

9.2.1.12A Common Measurement Accuracy

The Common Measurement Accuracy IE indicates the accuracy of the common measurement.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|--|-----------------------|
| CHOICE Common Measurement Accuracy | | | | |
| >T _{UTRAN-GPS} Measurement Accuracy Class | | | | |
| >>T _{UTRAN-GPS} Measurement Accuracy Class | М | | T _{UTRAN-GPS} Accuracy Class 9.2.1.59B | |

9.2.1.12B Common Measurement Object Type

Void.

9.2.1.12C Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--|---|
| Common Measurement Type | | | ENUMERATED (UTRAN GPS Timing of Cell Frames for UE Positioning, SFN-SFN Observed Time Difference, load, transmitted carrier power, received total wide band power, UL timeslot ISCP,, RT Load, NRT Load Information) | UL timeslot ISCP shall only be used by TDD. For measurements, which are requested on the lur-g interface, only load, RT Load and NRT Load information are used. |

9.2.1.12D Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|---|-----------------------|
| CHOICE Common | | | | |
| Measurement Value | | | | |
| > T _{UTRANGPS} Measurement Value Information | | | | UTRAN only |
| >>T _{UTRAN-GPS} Measurement Value Information | M | | 9.2.1.59D | |
| > SFN-SFN Measurement Value Information | | | | UTRAN only |
| >>SFN-SFN Measurement Value Information | М | | 9.2.1.52C | |
| >Load Value | | | | |
| >>Load Value | M | | 9.2.1.33A | |
| >Transmitted Carrier Power Value | | | | UTRAN only |
| >>Transmitted Carrier Power Value | M | | Transmitted Carrier Power 9.2.1.59A | |
| >Received Total Wide Band Power Value | | | | UTRAN only |
| >>Received Total Wide Band Power Value | М | | Received Total Wide Band Power 9.2.2.35A | |
| >UL Timeslot ISCP Value | | | | TDD Only |
| >>UL Timeslot ISCP Value | M | | UL Timeslot ISCP 9.2.3.13A | |
| >RT Load Value | | | | |
| >>RT Load Value | M | | 9.2.1.50B | |
| >NRT Load Information Value | | | | |
| >>NRT Load Information Value | М | | 9.2.1.411 | |

9.2.1.12E Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|-----------------------|-----------------------|
| CHOICE Measurement Availability | М | | | |
| >Measurement Available | | | | |
| >>Common Measurement Value | М | | 9.2.1.12D | |
| >Measurement not Available | | | NULL | |

9.2.1.12F Common Transport Channel Resources Initialisation not Required

If present, this IE indicates that as far as the DRNC is concerned, there is no need to initiate a Common Transport Channel Resources Initialisation procedure if the SRNC wants to allocate common transport channel resources in the new cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|-----------------------|-----------------------|
| Common Transport | | | ENUMERAT | |
| Channel Resources | | | ED(Not | |
| Initialisation not Required | | | Required) | |

9.2.1.12G Coverage Indicator

The Coverage Indicator indicates whether the serving and the neighbouring cell are overlapped, i.e. the cells have approximately same coverage area or whether the neighbouring cell covers or contained in the serving cell.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| Coverage Indicator | | | ENUMERAT | |
| - | | | ED(Overlap, | |
| | | | Covers, | |
| | | | Contained | |
| | | | in) | |

9.2.1.13 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by an RNC when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the Criticality Diagnostics IE, see Annex C.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|---|--|-------------|----------------------|
| Procedure ID | | 01 | | Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error | - | |
| >Procedure Code | М | | INTEGER(0255 | | - | |
| >Ddmode | М | | ENUMERATED(FDD, TDD, Common) | Common = common to FDD and TDD. Common Ddmode is also applicable for lurg procedures listed in section 7. | - | |
| Triggering Message | 0 | | ENUMERATED(i nitiating message, successful outcome, unsuccessful outcome, outcome) | The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. | - | |
| Procedure Criticality | 0 | | ENUMERATED(r eject, ignore, notify) | This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). | - | |
| Transaction ID | 0 | | Transaction ID | , | - | |
| Information Element Criticality Diagnostics | | 0 <max noof errors></max | | | - | |
| >IE Criticality | М | | ENUMERATED(r eject, ignore, notify) | The IE Criticality is used for reporting the criticality of the triggering IE. The value 'Ignore" shall never be used. | - | |
| >IE ID | М | | INTEGER(0655 35) | The IE ID of the not understood or missing IE as defined in the ASN.1 part of the specification. | - | |
| >Repetition Number | 0 | | INTEGER(0255) | The Repetition Number IE gives in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence in case of a missing IE: The number of occurrences up to but not including the missing occurrence. | | |

| | | | Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them. | | |
|-----------------------|---|---|--|-----|--------|
| >Message Structure | 0 | 9.2.1.39A | The Message Structure IE describes the structure in which the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message. | YES | ignore |
| >Type of Error | M | ENUMERATED(not understood, missing,) | | YES | ignore |

| Range bound | Explanation |
|---------------|--|
| maxnooferrors | Maximum number of IE errors allowed to be reported with a single |
| | message. |

9.2.1.14 C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE Context has one unique C-RNTI value allocated in the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| C-RNTI | | | INTEGER(0. | |
| | | | .65535) | |

9.2.1.15 DCH Combination Indicator

Void

9.2.1.16 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| DCH ID | | | INTEGER | |
| | | | (0255) | |

9.2.1.16A DCH Information Response

The DCH Information IE provides information for DCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| DCH Information Response | | 1 <maxno ofDCHs></maxno | | | _ | |
| >DCH ID | M | | 9.2.1.16 | | - | |
| >Binding ID | 0 | | 9.2.1.3 | | - | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | - | |
| >Allowed Rate Information | 0 | | 9.2.1.2A | | YES | ignore |

| Range bound | Explanation | | |
|-------------|------------------------------------|--|--|
| maxnoofDCHs | Maximum number of DCHs for one UE. | | |

9.2.1.17 Dedicated Measurement Object Type

Void.

9.2.1.18 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|------------------------------|
| | | | Reference | |
| Dedicated Measurement | | | ENUMERAT | RSCP and HS-SICH |
| Type | | | ED(SIR, SIR | Receptions Quality are used |
| | | | Error, | by TDD only, Rx Timing |
| | | | Transmitted | Deviation is used by 3.84 |
| | | | Code Power, | TDD only, Rx Timing |
| | | | RSCP, Rx | Deviation LCR is used by |
| | | | Timing | 1.28 TDD only, |
| | | | Deviation, | Round Trip Time, SIR Error |
| | | | Round Trip | are used by FDD only. |
| | | | Time,, Rx | Angle Of Arrival LCR is used |
| | | | Timing | by 1.28Mcps TDD only. |
| | | | Deviation | |
| | | | LCR, Angle | |
| | | | Of Arrival | |
| | | | LCR, | |
| | | | HS-SICH | |
| | | | Reception | |
| | | | Quality) | |

NOTE: For definitions of the measurement types refer to ref. [11] and [14].

9.2.1.19 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|---|--|---------------|-------------------------|
| CHOICE Dedicated | | | | | _ | |
| Measurement Value | | | | | | |
| >SIR Value >>SIR Value | M | | INTEGER(063) | According to mapping in ref. [23] and [24] | <u>-</u> - | |
| >SIR Error Value | | | | FDD Only | | |
| >>SIR Error Value | M | | INTEGER(0125) | According to mapping in [23] | _ | |
| >Transmitted Code Power Value | | | | | _ | |
| >>Transmitted Code Power Value | M | | INTEGER(0127) | According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used. | - | |
| >RSCP | | | | TDD Only | _ | |
| >>RSCP | M | | INTEGER(0127) | According to mapping in ref. [24] | - | |
| >Rx Timing Deviation Value | | | | 3.84Mcps TDD Only | - | |
| >>Rx Timing Deviation | М | | INTEGER(08191) | According to mapping in [24] | - | |
| >Round Trip Time | | | | FDD Only | _ | |
| >>Round Trip Time | M | | INTEGER(032767) | According to mapping in [23] | - | |
| >Additional Dedicated Measurement Values | | | | | _ | |
| >>Rx Timing Deviation Value LCR | | | | 1.28Mcps TDD Only | YES | reject |
| >>>Rx Timing Deviation LCR | М | | INTEGER(0511) | According to mapping in [24] | - | |
| >>Angle of Arrival Value LCR | | | | 1.28Mcps TDD only | YES | reject |
| >>>AOA LCR | М | | INTEGER(0719) | According to mapping in [24] | _ | |
| >>>AOA LCR Accuracy Class | M | | ENUMER ATED(A, B, C, D, E, F, G, H,) | According to mapping in [24] | - | |
| >>HS-SICH reception quality | | | | Applicable to TDD only | - | |
| >>>HS-SICH reception quality Value | | 1 | | | YES | reject |
| >>>>Failed HS-SICH | M | | INTEGER (020) | According to mapping in [23] | - | |
| >>>Missed HS-SICH | M | | INTEGER (020) | According to mapping in [23] | _ | |
| >>>Total HS-SICH | М | | INTEGER (020) | According to mapping in [23] | - | |

9.2.1.19A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message and if provided also the Dedicated Measurement Value itself.

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--|-------------|-------------------------|
| CHOICE Measurement Availability Indicator | М | | | | _ | |
| >Measurement Available | | | | | _ | |
| >>Dedicated Measurement Value | М | | 9.2.1.19 | | _ | |
| >>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |
| >Measurement not Available | | | NULL | | _ | |

9.2.1.19Aa Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| CHOICE Delayed Activation | M | | | |
| > CFN | | | | |
| >> Activation CFN | M | | CFN 9.2.1.7 | |
| > Separate Indication | | | NULL | |

9.2.1.19Ab Delayed Activation Update

The Delayed Activation Update IE indicates a change of the activation of the DL power for a specific RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|-----------------------|
| CHOICE Delayed Activation | M | | | |
| Update | | | | |
| > Activate | | | | |
| >> CHOICE Activation Type | | | | |
| >>> Synchronised | | | | |
| >>>> Activation CFN | M | | CFN 9.2.1.7 | |
| >>> Unsynchronised | | | NULL | |
| >> Initial DL TX Power | M | | DL Power | |
| | | | 9.2.1.21 | |
| >> First RLS Indicator | 0 | | 9.2.2.16A | FDD Only |
| >> Propagation Delay | 0 | | 9.2.2.35 | FDD Only |
| > Deactivate | | | | |
| >> CHOICE Deactivation type | | | | |
| >>> Synchronised | | | | |
| >>>> Deactivation CFN | M | | CFN 9.2.1.7 | |
| >>> Unsynchronised | | | NULL | |

9.2.1.19B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------------------------|--|---|
| GPS TOW | М | | INTEGER(0604799) | Time in seconds. This field indicates the baseline time for which the corrections are valid |
| Status/Health | M | | ENUMERAT ED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data) | This field indicates the status of the differential corrections |
| Satellite DGPS Corrections Information | | 1 <maxnosat></maxnosat> | | |
| >SatID | M | | SAT ID 9.2.1.50A | Satellite ID |
| >IODE | M | | BIT STRING(8) | This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eightbit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations. |
| >UDRE | M | | ENUMERAT ED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE,) | User Differential Range Error. This field provides an estimate of the uncertainty (1- o) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite |
| >PRC | М | | INTEGER(-20472047) | Scaling factor 0.32 meters |
| >Range Correction Rate | М | | INTEGER(- 127 127) | Scaling factor 0.032 m/s |

| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.19C Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The DRNS shall use this information to discard out-of-date MAC-hs SDUs from the HSDPA Priority Queues.

| IE/Group Name | Presence | Range | IE type and | Semantics description |
|---------------|----------|-------|--------------|-----------------------|
| | | | reference | |
| Discard Timer | | | ENUMERAT | Unit: ms |
| | | | ED (20, 40, | |
| | | | 60, 80, 100, | |
| | | | 120, 140, | |
| | | | 160, 180, | |
| | | | 200, 250, | |
| | | | 300, 400, | |
| | | | 500, 750, | |
| | | | 1000, 1250, | |
| | | | 1500, 1750, | |
| | | | 2000, 2500, | |
| | | | 3000, 3500, | |
| | | | 4000, 4500, | |
| | | | 5000, 7500, | |
| | | |) | |

9.2.1.20 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Diversity Control Field | | | ENUMERAT | |
| | | | ED(May, | |
| | | | Must, Must | |
| | | | not) | |

9.2.1.21 Diversity Indication

Void.

9.2.1.21A DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell [FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols]. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[TDD - If referred to a DPCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| DL Power | | | INTEGER (- 350150) | Value = DL Power /10 Unit dB Range –35.0 +15.0 Step 0.1dB |

9.2.1.22 Downlink SIR Target

Void

9.2.1.23 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| DPCH Constant Value | | | INTEGER (- | |
| | | | 1010) | Granularity 1 dB. |

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9.2.1.24 **D-RNTI**

The D-RNTI identifies the UE Context in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| D-RNTI | | | INTEGER(02^20 -1) | |

9.2.1.25 **D-RNTI** Release Indication

The D-RNTI Release Indication indicates whether or not a DRNC shall release the D-RNTI allocated for a particular

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------------------|-----------------------|
| D-RNTI Release Indication | | | ENUMERAT ED(Release | |
| | | | D-RNTI, not Release D-RNTI) | |

9.2.1.26 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|--------------------------|--|
| DRX Cycle Length Coefficient | | | INTEGER (39) | Refers to 'k' in the formula as specified in ref. [15], Discontinuous Reception. |

9.2.1.26A DSCH ID

The DSCH ID is the identifier of an active downlink shared channel. It is unique for each active DSCH among the active DSCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| DSCH ID | | | INTEGER (0255) | |

9.2.1.26Aa DSCH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before new credits are received from the DRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--------------------------|----------|-------|-----------------------|---|
| DSCH Initial Window Size | | | INTEGER (1255) | Number of MAC-c/sh SDUs: 255 = Unlimited number of MAC-c/sh SDUs. |

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9.2.1.26B **DSCH Flow Control Information**

The DSCH Flow Control Information IE provides flow control information for each scheduling priority class for the DSCH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|--|--|--------------------------|-------------|-------------------------|
| DSCH Flow Control Information | | 116 | | | _ | |
| >DSCH Scheduling Priority | M | | Scheduling Priority Indicator 9.2.1.51A | | - | |
| >MAC-c/sh SDU Length | | 1 <maxnb MAC- c/shSDUL ength></maxnb | | | - | |
| >>MAC-c/sh SDU Length | M | | 9.2.1.34 | | _ | |
| >DSCH Initial Window Size | 0 | | 9.2.1.26Aa | | YES | Ignore |

| Range bound | Explanation |
|------------------------|---|
| maxNbMAC-c/shSDULength | Maximum number of different MAC-c/sh SDU lengths. |

9.2.1.26Ba DSCH-RNTI

DSCH-RNTI is the UE identifier allocated by DRNS to be used over the radio interface by UEs having one or several DSCHs [TDD – and/or USCHs]. It is unique within a cell.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|-----------------------|-----------------------|
| DSCH-RNTI | | | INTEGER(065535) | |

9.2.1.26Bb Extended GSM Cell Individual Offset

Extended GSM Cell individual offset is an offset that will be applied by UE to the measurement results for GSM carrier RSSI according to [16]. It shall be used when the offset exceeds the range of values that can be indicated using the Cell Individual Offset IE (Subclause 9.2.1.7).

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------------|----------|-------|-------------|--------------------------------|
| | | | Reference | |
| Extended GSM Cell Individual | | | INTEGER (- | Unit in dB. Step size is 1 dB. |
| Offset | | | 5011 | • |
| | | | 1150) | |

FACH Flow Control Information 9.2.1.26C

The FACH Flow Control Information IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|--|--|--------------------------|-------------|-------------------------|
| FACH Flow Control Information | | 116 | | | _ | |
| >FACH Scheduling Priority | M | | Scheduling Priority Indicator 9.2.1.51A | | - | |
| >MAC-c/sh SDU Length | | 1 <maxnb MAC- c/shSDUL ength></maxnb | | | - | |
| >>MAC-c/sh SDU Length | M | | 9.2.1.34 | | _ | |
| >FACH Initial Window Size | M | | 9.2.1.27 | | _ | |

| Range bound | Explanation |
|------------------------|---|
| maxNbMAC-c/shSDULength | Maximum number of different MAC-c/sh SDU lengths. |

9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------------|----------|-------|---------------|---|
| | | | Reference | |
| FACH Initial Window Size | | | INTEGER(0255) | Number of frames (MAC-c/sh SDUs.) 255 = Unlimited number of FACH data frames. |

9.2.1.28 FACH Priority Indicator

Void

9.2.1.28A FN Reporting Indicator

Frame Number reporting indicator.

Indicates if the SFN or CFN shall be included together with the reported measurement value.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------|----------|-------|---------------|-----------------------|
| | | | Reference | |
| FN reporting indicator | | | ENUMERAT | |
| | | | ED(FN | |
| | | | reporting | |
| | | | required, FN | |
| | | | reporting not | |
| | | | required) | |

9.2.1.29 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/DSCH for temporary restriction of the allocated resources due overload reason.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--------------------------|-----------------------|
| Frame Handling Priority | | | INTEGER | 0=Lowest Priority, |
| | | | (015) | |
| | | | | 15=Highest Priority |

9.2.1.30 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame_offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Frame Offset | | | INTEGER | Frames |
| | | | (0255) | |

9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|--|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Uncertainty Code | М | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1) |

9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Uncertainty Ellipse | M | | 9.2.1.68A | |
| Confidence | M | | INTEGER(| |
| | | | 0127) | |

9.2.1.30C GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |

9.2.1.30D GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |
| Uncertainty Ellipse | M | | 9.2.1.68A | |
| Uncertainty Altitude | M | | INTEGER(| |
| | | | 0127) | |
| Confidence | M | | INTEGER(| |
| | | | 0127) | |

9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|----------------------------------|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Inner radius | M | | INTEGER(02 ¹⁶ -1) | The relation between the value (N) and the radius (r) in meters it describes is 5N≤ r <5(N+1), except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r). |
| Uncertainty radius | М | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 -1) |
| Offset angle | M | | INTEGER(0179) | The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1) |
| Included angle | M | | INTEGER(0179) | The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1) |
| Confidence | М | | INTEGER(0127) | |

9.2.1.30F Geographical Coordinates

This IE contains the description of geographical coordinates.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--|--|
| Latitude Sign | М | | ENUMERAT ED(North, South) | |
| Degrees Of Latitude | М | | INTEGER(02 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°) |
| Degrees Of Longitude | М | | INTEGER(-2 ²³ 2 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°) |

9.2.1.30Fa GERAN Cell Capability

The GERAN Cell Capability IE is used to transfer the capabilities of a certain GERAN cell via the Iur interface.

| IE/Group Name | Presence | Range | IE type and | Semantics description |
|-----------------------|----------|-------|-----------------|---|
| | | | reference | |
| GERAN Cell Capability | M | | BIT STRING (16) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: A/Gb mode. The second bit: lu mode. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.1.30Fb GERAN Classmark

The GERAN Classmark IE is used to transfer the capabilties of a certain GERAN Iu-mode capable cell via the Iur interface.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------|----------|-------|-----------------------|--------------------------|
| GERAN Classmark | М | | OCTET STRING | Contents defined in [38] |

9.2.1.30G GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|--------------------------------|-----------------------|-----------------------|
| WN _a | M | | BIT STRING(8) | |
| Satellite Almanac Information | M | 1 <maxno Sat></maxno | | |
| >DataID | М | | INTEGER (03) | |
| >SatID | M | | SAT ID 9.2.1.50A | Satellite ID |
| >e | M | | BIT STRING(16) | |
| >t _{oa} | M | | BIT STRING(8) | |
| >δI | M | | BIT STRING(16) | |
| >OMEGADOT | М | | BIT STRING(16) | |
| >SV Health | M | | BIT STRING(8) | |
| >A ^{1/2} | M | | BIT STRING(24) | |
| >OMEGA ₀ | M | | BIT STRING(24) | |
| >M ₀ | M | | BIT STRING(24) | |
| >0 | M | | BIT STRING(24) | |
| >af ₀ | М | | BIT STRING(11) | |
| >af₁ | M | | BIT STRING(11) | |
| SV Global Health | 0 | | BIT STRING(364) | |

| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.30H GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [30].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| α_0 | M | | BIT STRING(8) | |
| α_1 | M | | BIT STRING(8) | |
| α_2 | M | | BIT STRING(8) | |
| α_3 | M | | BIT STRING(8) | |
| β_0 | M | | BIT STRING(8) | |
| β_1 | M | | BIT STRING(8) | |
| β_2 | M | | BIT STRING(8) | |
| β_3 | M | | BIT STRING(8) | |

9.2.1.30I GPS Navigation Model and Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [30].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------------------------|-----------------------|--|
| Navigation Message 1to3 | | 1 <maxnosat></maxnosat> | | |
| >Transmission TOW | M | | INTEGER0 | Time of the Week when the |
| | | | 1048575) | message is broadcast. |
| >SatID | M | | SAT ID 9.2.1.50A | Satellite ID of the satellite from which the information is obtained |
| >TLM Message | М | | BIT STRING(14) | |
| >TIm Revd (C) | М | | BIT STRING(2) | |
| >HO-Word | М | | BIT STRING(22) | |
| >WN | М | | BIT | |
| >C/A or P on L2 | M | | STRING(10) BIT | |
| >User Range Accuracy | M | | STRING(2) BIT | |
| Index >SV Health | M | | STRING(4) BIT | |
| >SV Fledilli | IVI | | STRING(6) | |
| >IODC | M | | BIT | |
| >L2 P Data Flag | M | | STRING(10) BIT | |
| • | | | STRING(1) | |
| >SF 1 Reserved | M | | BIT | |
| >T _{GD} | M | | STRING(87) BIT | |
| >1 GD | IVI | | STRING(8) | |
| >t _{oc} | М | | BIT STRING(16) | |
| >af ₂ | M | | BIT | |
| . of | M | | STRING(8) BIT | |
| >af₁ | IVI | | STRING(16) | |
| >af ₀ | M | | BIT | |
| >C _{rs} | M | | STRING(22) BIT | |
| | | | STRING(16) | |
| >∆n | M | | BIT STRING(16) | |
| >M ₀ | M | | BIT | |
| | D 4 | | STRING(32) | |
| >C _{uc} | M | | BIT STRING(16) | |
| >e | М | | BIT | |
| . ^ | B.4 | | STRING(32) | |
| >C _{us} | M | | BIT STRING(16) | |
| >(A) ^{1/2} | M | | BIT | |
| >t _{oe} | M | | STRING(32) BIT | |
| | | | STRING(16) | |
| >Fit Interval Flag | M | | BIT STRING(1) | |
| >AODO | М | | BIT STRING(5) | |
| >C _{ic} | М | | BIT STRING(16) | |
| >OMEGA ₀ | М | | BIT STRING(32) | |
| >C _{is} | M | | BIT | |
| >i ₀ | M | | STRING(16) BIT | |
| r 10 | 141 | | STRING(32) | |

| >C _{rc} | M | BIT |
|------------------|---|------------|
| | | STRING(16) |
| >ω | M | BIT |
| | | STRING(32) |
| >OMEGAdot | M | BIT |
| | | STRING(24) |
| >ldot | M | BIT |
| | | STRING(14) |
| >Spare/zero fill | M | BIT |
| | | STRING(20) |

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| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

GPS Real-Time Integrity 9.2.1.30J

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------------|----------|-------------------------------|--------------------------|-----------------------|
| CHOICE Bad Satellites Presence | M | | | |
| >Bad Satellites | | | | |
| >>Satellite information | | 1 <maxn oSat></maxn | | |
| >>>BadSatID | М | | SAT ID 9.2.1.50A | Satellite ID |
| >No Bad Satellites | | | NULL | |

| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.30K GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |

9.2.1.30L **GPS UTC Model**

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [30].

| IE/Group name | IE/Group name Presence Rang | | IE Type and Reference | Semantics Description |
|-------------------|-----------------------------|--|-----------------------|-----------------------|
| A ₁ | М | | BIT STRING(24) | |
| A ₀ | М | | BIT STRING(32) | |
| t _{ot} | M | | BIT STRING(8) | |
| Δt_{LS} | M | | BIT STRING(8) | |
| W N _t | М | | BIT STRING(8) | |
| WN _{LSF} | M | | BIT STRING(8) | |
| DN | M | | BIT STRING(8) | |
| Δt_{LSF} | М | | BIT STRING(8) | |

9.2.1.30M Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|---------------------------|---|
| Guaranteed UL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |
| Guaranteed DL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |

9.2.1.30N HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| HCS Prio | | | INTEGER | 0=Lowest Priority, |
| | | | (07) | |
| | | | | 7=Highest Priority |

9.2.1.30Na HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iur.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-------|--------------------------------|-----------------------|-------------|-------------------------|
| HS-DSCH Initial Capacity Allocation | | 116 | | | ı | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >Maximum MAC-d PDU Size | M | | MAC-d PDU Size 9.2.1.34A | | I | |
| >HS-DSCH Initial Window Size | М | | 9.2.1.30Nb | | _ | |

9.2.1.30Nb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs that may be transmitted before new credits are received from the DRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|------------------------|----------|-------|-----------------------|----------------------------|
| HS-DSCH Initial Window | | | INTEGER | Number of MAC-d PDUs: |
| Size | | | (12047) | 2047 = Unlimited number of |
| | | | | MAC-d PDUs. |

9.2.1.300 HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| HS-DSCH MAC-d Flow ID | | | INTEGER (07) | |

9.2.1.30Oa HS-DSCH Physical Layer Category

The HS-DSCH Physical Layer Category IE defines a set of UE radio access capabilities related to HSDPA, as defined in [42].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|--------------------------|-----------------------|
| HS-DSCH Physical Layer | | | INTEGER (164,) | |
| Category | | | | |

9.2.1.30P HS-DSCH-RNTI

The HS-DSCH-RNTI is needed for the UE-specific CRC in HS-SCCH and HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| HS-DSCH-RNTI | | | INTEGER | |
| | | | (065535) | |

9.2.1.30Q HS-DSCH Information To Modify

The HS-DSCH Information To Modify IE provides information for HS-DSCH to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|--|---|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information | | 0 <maxno ofMACdFl ows></maxno | Reletence | | _ | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.300 | | _ | |
| >Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | _ | |
| >Traffic Class | 0 | | 9.2.1.58A | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| Priority Queue Information | | 0 <maxno ofPrioQue ues></maxno | | | _ | |
| >CHOICE Priority Queue | M | | | | - | |
| >>Add Priority Queue | | | | | _ | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | _ | |
| >>>Associated HS- DSCH MAC-d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | _ | |
| >>>Scheduling Priority Indicator | M | | 9.2.1.51A | | _ | |
| >>>T1 | M | | 9.2.1.54A | | _ | |
| >>>Discard Timer | 0 | | 9.2.1.19C | | | |
| >>>MAC-hs Window Size | M | | 9.2.1.34C | | _ | |
| >>>MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | _ | |
| >>>MAC-d PDU Size Index | | 1 <maxno ofMACdP DUindexes ></maxno | | | _ | |
| >>>SID | М | | 9.2.1.52D | | _ | |
| >>>MAC-d PDU Size | M | | 9.2.1.34A | | _ | |
| >>Modify Priority Queue | | | | | _ | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | _ | |
| >>>Associated HS- DSCH MAC-d Flow | 0 | | HS-DSCH MAC-d Flow ID 9.2.1.30O | | _ | |
| >>>Scheduling Priority Indicator | 0 | | 9.2.1.51A | | _ | |
| >>>T1 | 0 | | 9.2.1.54A | | _ | |
| >>>Discard Timer | 0 | | 9.2.1.19C | | | |
| >>>MAC-hs Window Size | 0 | | 9.2.1.34C | | _ | |
| >>>MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | _ | |
| >>>MAC-d PDU Size Index | | 0 <maxno ofMACdP DUindexes ></maxno | | | _ | |
| >>>SID | М | | 9.2.1.52D | | | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| >>>MAC-d PDU Size | 0 | | 9.2.1.34A | | _ | |
| >>Delete Priority Queue | | | | | _ | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | _ | |
| MAC-hs Reordering Buffer Size | 0 | | 9.2.1.34Ab | | _ | |
| CQI Feedback Cycle k | 0 | | 9.2.2.24a | For FDD only | - | |
| CQI Repetition Factor | 0 | | 9.2.2.24c | For FDD only | _ | |
| ACK-NACK Repetition Factor | 0 | | 9.2.2.a | For FDD only | _ | |
| CQI Power Offset | 0 | | 9.2.2.24b | For FDD only | _ | |
| ACK Power Offset | 0 | | 9.2.2.b | For FDD only | _ | |
| NACK Power Offset | 0 | | 9.2.2.26a | For FDD only | - | |
| HS-SCCH Power Offset | 0 | | 9.2.2.19d | For FDD only | _ | |
| HS-SCCH Code Change Grant | 0 | | 9.2.1.30S | | _ | |
| TDD ACK NACK Power Offset | 0 | | 9.2.3.71 | For TDD only | _ | |

| Range bound | Explanation |
|-----------------------|--|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofPrioQueues | Maximum number of Priority Queues. |
| maxnoofMACdPDUindexes | Maximum number of MAC-d PDU Size Indexes |
| | (SIDs). |

9.2.1.30R HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------------------|----------|-------|-----------------------|-----------------------|
| HS-SCCH Code Change Indicator | | | ENUMERAT ED (HS- | |
| | | | SCCH Code | |
| | | | Change | |
| | | | needed) | |

9.2.1.30S HS-SCCH Code Change Grant

The HS-SCCH Code Change Grant IE indicates that modification of HS-SCCH Codes is granted.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| HS-SCCH Code Change | | | ENUMERAT | |
| Grant | | | ED(Change | |
| | | | Granted) | |

9.2.1.31 IMSI

The IMSI is the permanent UE user Identity, see ref. [1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-------------------------------|---|
| IMSI | | | OCTET STRING (SIZE(38)) | -Decimal digits coded in BCD -'1111' used as filler -bit 4 to 1 of octet n is encoding digit 2n-1 -bit 8 to 5 of octet n is encoding digit 2n |

9.2.1.31A Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Information Exchange ID | М | | INTEGER(0 | |
| | | | 2^20-1) | |

9.2.1.31B Information Exchange Object Type

Void.

9.2.1.31C Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|-----------------------|---|
| CHOICE Information Report Characteristics Type | | | | |
| >OnDemand | | | NULL | |
| >Periodic | | | | |
| >>CHOICE Information Report Periodicity Scale | М | | | The frequency with which the Node B shall send information reports. |
| >>>minute | | | | |
| >>>Report Periodicity Value | M | | INTEGER (160,) | |
| >>>hour | | | | |
| >>>Report Periodicity Value | M | | INTEGER (124,) | |
| >On Modification | | | | |
| >>Information Threshold | 0 | | 9.2.1.31D | |

9.2.1.31D Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------|----------|-------|--------------------------|--------------------------|-------------|----------------------|
| CHOICE Information | M | | | | - | |
| Type Item | | | | | | |
| >DGPS | | | | | - | |
| Corrections | | | | | | |
| >>PRC | M | | ENUMERATED(| PRC deviation in | - | |
| Deviation | | | 1, 2, 5, 10,) | meters from the | | |
| | | | | previously reported | | |
| | | | | value, which shall | | |
| | | | | trigger a report | | |

9.2.1.31E Information Type

The Information Type indicates which kind of information the RNS shall provide.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-----------------------|----------|--|---|--|
| Information Type Item | M | | Reference ENUMERAT ED (UTRAN Access Point Position with Altitude, UTRAN Access Point Position, IPDL Parameters, GPS Information, DGPS Corrections, GPS RX Pos, SFN- SFN Measureme nt Reference Point Position,, Cell Capacity Class) | For information exchange on the lur-g interface, only the Cell Capacity Class is used. |
| GPS Information | C-GPS | 1 <maxnoofgpstype s></maxnoofgpstype | , | |
| >GPS Information Item | | | ENUMERAT ED (GPS Navigation Model and Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real- Time Integrity,) | |

| Condition Explanation | | |
|-----------------------|---|--|
| GPS | This IE shall be present if the Information Type ItemIE | |
| | indicates "GPS Information" | |

| Range Bound | Explanation |
|-----------------|--|
| maxnoofGPSTypes | Maximum number of GPS Information Types supported in one |
| | Information Exchange. |

9.2.1.31F IPDL Parameters

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------|----------|-------|-----------------------------|---------------------------------------|-------------|-------------------------|
| CHOICE IPDL Parameters | | | | | - | |
| >IPDL FDD Parameters | | | | | - | |
| >>IPDL FDD parameters | M | | 9.2.2.21B | | - | |
| >IPDL TDD Parameters | | | | Applicable to 3.84Mcps TDD only | - | |
| >>IPDL TDD parameters | М | | 9.2.3.4B | | - | |
| >IPDL TDD Parameters LCR | | | | Applicable to 1.28Mcps TDD only | - | |
| >>IPDL TDD parameters LCR | M | | 9.2.3.4Bb | | YES | reject |

9.2.1.32 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the DRNC, as defined in ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|--------------------------|-------------------------------------|
| L3 Information | | | BIT STRING | The content is defined in ref. [16] |

9.2.1.33 Limited Power Increase

Void.

9.2.1.33A Load Value

The *Load Value* IE contains the total load on the measured object relative to the maximum planned load for both the uplink and downlink. It is defined as the load percentage of the Cell Capacity Class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|--|
| Uplink Load Value | M | | INTEGER(0100) | Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale. |
| Downlink Load Value | M | | INTEGER(0100) | Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale. |

9.2.1.34 MAC-c/sh SDU Length

Indicates the MAC-c/sh SDU Length. Which is used for FACH, DSCH and USCH. There may be multiple MAC-c/sh SDU Lengths per priority class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|---|
| MAC-c/sh SDU Length | | | INTEGER(15000) | Size of the MAC-c/sh SDU in number of bits. |

9.2.1.34A MAC-d PDU Size

The MAC-d PDU Size IE provides the size in bits of the MAC-d PDU.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| MAC-d PDU Size | | | INTEGER | |
| | | | (15000,) | |

9.2.1.34Aa MAC-hs Guaranteed Bit Rate

The MAC-hs Guaranteed Bit Rate IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| MAC-hs Guaranteed Bit | | | INTEGER | Unit: bit/s |
| Rate | | | (02^24-1, | |
| | | |) | |

9.2.1.34Ab MAC-hs Reordering Buffer Size

The MAC-hs Reordering Buffer Size IE indicates the total buffer size defined in UE capability minus the RLC AM buffer in kBytes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------------|----------|-------|-----------------------|-----------------------|
| MAC-hs Reordering Buffer Size | | | INTEGER (1300,) | |

9.2.1.34B MAC-hs Reset Indicator

The MAC-hs Reset Indicator IE indicates that a reset of the MAC-hs is not required.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|--------------------------|-----------------------|
| MAC-hs Reset Indicator | | | ENUMERATED | |
| | | | (MAC-hs | |
| | | | Not Reset) | |

9.2.1.34C MAC-hs Window Size

The MAC-hs Window SIze IE is used for MAC-hs PDU retransmission as defined in [41].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--------------------|----------|-------|-----------------------|-----------------------|
| MAC-hs Window Size | | | ENUMERAT | |
| | | | ED (4, 6, 8, | |
| | | | 12, 16, 24, | |
| | | | 32,) | |

9.2.1.35 Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|--------------------------|-----------------------|
| Maximum Allowed UL Tx | | | INTEGER(- | dBm |
| Power | | | 50+33) | |

9.2.1.35A Measurement Availability Indicator

Void

9.2.1.35B Measurement Change Time

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--------------------------|-----------------------|
| Measurement Change Time | | | INTEGER | Unit: ms |
| | | | (16000,) | Range: 1060000 ms |
| | | | | Step: 10 ms |

9.2.1.36 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|----------------|-----------------------|
| | | | Reference | |
| Measurement Filter | | | ENUMERAT | |
| Coefficient | | | ED(0, 1, 2, | |
| | | | 3, 4, 5, 6, 7, | |
| | | | 8, 9, 11, 13, | |
| | | | 15, 17, | |
| | | | 19,) | |

9.2.1.36A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|--|
| Measurement Hysteresis Time | | | INTEGER (16000,) | Unit: ms Range: 1060000 ms Step: 10 ms |

9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| Measurement ID | | | INTEGER(0 2^20-1) | |

9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------|--|-------------|----------------------|
| CHOICE Measurement Increase/Decrease Threshold | | | | · | - | |
| >SIR | | | | | - | |
| >>SIR | М | | INTEGER(062) | 0: 0 dB 1: 0.5 dB 2: 1 dB | - | |
| | | | | 62: 31dB | | |
| >SIR Error | | | | FDD Only | - | |
| >>SIR Error | M | | INTEGER(0124) | 0: 0 dB 1: 0.5 dB 2: 1 dB 124: 62 dB | - | |
| >Transmitted Code | | | | 124. 02 UB | - | |
| Power | | | | | | |
| >>Transmitted Code Power | M | | INTEGER(0112 ,) | 0: 0 dB 1: 0.5 dB 2: 1 dB | - | |
| | | | | 112: 56 dB | | |
| >RSCP | | | | TDD Only | - | |
| >>RSCP | M | | INTEGER(0126) | 0: 0 dB 1: 0.5 dB 2: 1 dB | - | |
| | | | | 126: 63 dB | | |
| >Round Trip Time | | | | FDD Only | - | |
| >>Round Trip Time | M | | INTEGER(0327 66) | 0: 0 chips 1: 0.0625 chips 2: 0.1250 chips 32766: 2047.875 | - | |
| >Additional Measurement Thresholds | | | | chips | - | |
| >>Load | | | | | - | |
| >>>Load | M | | INTEGER(0100) | Units are the same as for the Uplink Load Value IE and Dowlink Load Value IE. | - | |
| >> Transmitted Carrier Power | | | | | - | |
| >>>Transmitted Carrier Power | M | | INTEGER(0100 | According to mapping in [23] and [24]. | YES | reject |
| >> Received Total Wide Band Power | | | | THE CONTRACT OF THE CONTRACT O | - | |
| >>>Received Total Wide Band Power | М | | INTEGER(0620) | 0: 0dB 1: 0.1dB 2: 0.2dB | YES | reject |
| >>UL Timeslot | | | | 620: 62dB TDD Only | - | |
| ISCP >>>UL Timeslot ISCP | | | INTEGER(0126) | 0: 0dB 1: 0.5dB 2: 1dB | YES | reject |
| | | | | 126: 63dB | | |
| >>RT Load | | | INTEGER/2 (22 | 11-2 0 | - | |
| >>>RT Load | M | | INTEGER(0100 | Units are the same as | YES | reject |

| | |) | for the <i>Uplink RT</i> Load Value IE and Downlink RT Load Value IE. | | |
|----------------------------|---|-------------|---|-----|--------|
| >>NRT Load Information | | | | - | |
| >>>NRT Load Information | М | INTEGER(03) | | YES | reject |

9.2.1.39 Measurement Threshold

 $The \ Measurement \ Threshold \ defines \ which \ threshold \ that \ shall \ trigger \ Event \ A, \ B, \ E, \ F \ or \ On \ Modification.$

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality | |
|---|----------|-------|-----------------------|---|-------------|----------------------|--|
| CHOICE | | | | • | - | | |
| Measurement Threshold | | | | | | | |
| >SIR | | | | | - | | |
| >>SIR | М | | INTEGER(063) | According to mapping in ref. [23] and [24]. | - | | |
| >SIR Error | | | | FDD Only | - | | |
| >>SIR Error | М | | INTEGER(0125) | According to mapping in [23] | - | | |
| > Transmitted Carrier Power | | | | | - | | |
| >>Transmitted Code Power | М | | INTEGER(0127) | According to mapping in ref. [23] and [24]. | - | | |
| >RSCP | | | , | TDD Only | - | | |
| >>RSCP | М | | INTEGER(0127 | According to mapping in ref. [24] | - | | |
| >Rx Timing Deviation | | | / | Applicable to 3.84Mcps TDD Only | - | | |
| >>Rx Timing Deviation | М | | INTEGER(0819 1) | According to mapping in [24] | - | | |
| >Round Trip Time | | | '/ | FDD Only | _ | | |
| >>Round Trip | М | | INTEGER(0327 | According to mapping | _ | | |
| Time > T _{UTRAN-GPS} | | | 67) | in [23] | _ | | |
| Measurement Threshold Information | | | | | | | |
| >>T _{UTRANGPS} Measurement Threshold Information | M | | 9.2.1.59C | | YES | reject | |
| > SFN-SFN Measurement Threshold Information | | | | | - | | |
| >>SFN-SFN Measurement Threshold Information | M | | 9.2.1.52B | | YES | reject | |
| >Load | | | | | - | | |
| >>Load | M | | INTEGER(0100) | 0 is the minimum indicated load, and 100 is the maximum indicated load. | YES | reject | |
| >Transmitted Carrier Power | | | | | - | | |
| >>Transmitted Carrier Power | М | | INTEGER(0100 | According to mapping in [23] and [24]. | YES | reject | |
| >Received Total Wide Band Power | | | | in [20] and [21]. | - | | |
| >>Received Total Wide Band | М | | INTEGER(0621 | According to mapping in [23] and [24]. | YES | reject | |
| Power >UL Timeslot | | | | TDD Only | - | | |
| ISCP >>UL Timeslot ISCP | M | | INTEGER(0127 | According to mapping in [24] | YES | reject | |
| >RT Load | | | | | - | | |
| >>RT Load | M | | INTEGER(0100) | | YES | reject | |
| >NRT Load Information | | | | | - | | |
| >>NRT Load Information | М | | INTEGER(03) | | YES | reject | |
| >Rx Timing | | | | Applicable to | | | |

| Deviation LCR | | | 1.28Mcps TDD Only | | |
|-----------------------------------|---|---------------|------------------------------|-----|--------|
| >>Rx Timing | M | INTEGER(0255 | According to mapping | YES | reject |
| Deviation LCR | |) | in [24] | | |
| >HS-SICH | | | Applicable to TDD | _ | |
| reception quality | | | Only | | |
| >>HS-SICH reception quality | М | INTEGER (020) | According to mapping in [23] | YES | reject |

9.2.1.39A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occured error (reported in the *Information Element Criticality Diagnostics* IE).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------|----------|--------------------------------------|-----------------------------|---|-------------|-------------------------|
| Message structure | | 1 <maxnoo flevels></maxnoo | | The first repetition of the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occured error of the message. | GLOBAL | ignore |
| >IE ID | М | | INTEGER(065535) | The IE ID of this level's IE containing the not understood or missing IE. | - | |
| >Repetition Number | 0 | | INTEGER(1256) | The Repetition Number IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them. | | |

| Range bound | Explanation |
|---------------|--|
| maxnooflevels | Maximum no. of message levels to report. The value for |
| | maxnooflevels is 256. |

9.2.1.40 Message Type

The Message Type uniquely identifies the message being sent.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|---|---|
| Procedure ID | | 1 | | |
| >Procedure Code | M | | INTEGER (0255) | "0" = Common Transport Channel Resources Initialisation "1" = Common Transport Channel Resources Release "2" = Compressed Mode Command "3" = Downlink Power Control "4" = Downlink Power Timeslot Control "5" = Downlink Signalling Transfer "6" = Error Indication "7" = Dedicated Measurement Failure "8" = Dedicated Measurement Reporting |
| | | | | "10" = Dedicated Measurement Termination "11" = Paging "12" = Physical Channel Reconfiguration "14" = Radio Link Addition "15" = Radio Link Peletion "16" = Radio Link Preemption "18" = Radio Link Restoration "19" = Radio Link Setup "20" = Relocation Commit "21" = Synchronised Radio Link Reconfiguration Cancellation "22" = Synchronised Radio Link Reconfiguration Commit "23" = Synchronised Radio Link Reconfiguration Preparation "24" = UnSynchronised Radio Link Reconfiguration Preparation "25" = Uplink Signalling Transfer "26" = Common Measurement Failure "27" = Common Measurement Reporting "29" = Common MeasurementTermination "30" = Information Exchange Failure "31" = Information Exchange Initiation "32" = Information Reporting "33" = Information Exchange Termination "34" = Radio Link Congestion "35" = Reset "36" = Radio Link Activation "38" = Radio Link Parameter Update |
| >Ddmode | M | | ENUMERATED(FDD, TDD, Common,) | Common = common to FDD and TDD. |
| Type of Message | М | | ENUMERATED(Initiati ng Message, Successful Outcome, Unsuccessful Outcome, Outcome) | |

9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------|----------|-------|--------------|-----------------------|
| | | | Reference | |
| Multiple URAs Indicator | | | ENUMERAT | |
| | | | ED(Multiple | |
| | | | URA s exist, | |
| | | | Single URA | |
| | | | Exists) | |

9.2.1.41A Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|-----------------------------|--------------------------|-------------|-------------------------|
| Neighbouring UMTS Cell Information | | 1 <maxnoof neighbourin gRNCs></maxnoof | | | EACH | ignore |
| >RNC-ID | M | | 9.2.1.50 | | _ | |
| >CN PS Domain Identifier | 0 | | 9.2.1.12 | | _ | |
| >CN CS Domain Identifier | 0 | | 9.2.1.11 | | _ | |
| >Neighbouring FDD Cell Information | 0 | | 9.2.1.41B | | _ | |
| >Neighbouring TDD Cell Information | 0 | | 9.2.1.41D | | _ | |
| >Neighbouring TDD Cell Information LCR | 0 | | 9.2.1.72 | | YES | ignore |

| Range bound | Explanation |
|-------------------------|--------------------------------------|
| maxnoofneighbouringRNCs | Maximum number of neighbouring RNCs. |

9.2.1.41B Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are a neighbouring cells to a cell in the DRNC.

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|-----------------------|-------------------------------------|-------------|---|
| Neighbouring FDD Cell Information | | 1 <max noofFDD neighbou rs></max | | Joseph | - | • |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >UL UARFCN | M | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | - | |
| >DL UARFCN | М | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | ı | |
| >Frame Offset | 0 | | 9.2.1.30 | | _ | |
| >Primary Scrambling Code | M | | 9.2.1.45 | | _ | |
| >Primary CPICH Power | 0 | | 9.2.1.44 | | _ | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | | _ | |
| >Tx Diversity Indicator | M | | 9.2.2.50 | | | |
| >STTD Support Indicator | 0 | | 9.2.2.45 | | _ | |
| >Closed Loop Mode1 Support Indicator | 0 | | 9.2.2.2 | | ı | |
| >Closed Loop Mode2 Support Indicator | 0 | | 9.2.2.3 | | ı | |
| >Restriction State Indicator | 0 | | 9.2.1.48C | | YES | ignore |
| >DPC Mode Change Support Indicator | 0 | | 9.2.2.56 | | YES | ignore |
| >Coverage Indicator | 0 | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | 0 | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container FDD | 0 | | 9.2.2.D | | YES | ignore |
| >SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

| Range bound | Explanation |
|----------------------|---|
| maxnoofFDDneighbours | Maximum number of neighbouring FDD cell for one cell. |

9.2.1.41C Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for all GSM Cells that are a neighbouring cell to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|--|--|--|-------------|----------------------|
| Neighbouring GSM Cell Information | | 1 <max noofGS Mneighb ours></max | | | GLOBAL | ignore |
| >CGI | | 1 | | Cell Global Identity as defined in ref. [1]. | _ | |
| >>LAI | | 1 | | | _ | |
| >>>PLMN Identity | M | | OCTET STRING (3) | | | |
| >>>LAC | М | | OCTET STRING (2) | 0000 and FFFE not allowed | _ | |
| >>Cl | М | | OCTET STRING (2) | | - | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | The Cell Individual Offset to be used for UEs using DCHs. If the Extended GSM Cell Individual Offset IE is present, the Cell Individual Offset IE shall be set to a) -10dB if the Extended GSM Cell Individual Offset IE is < -10dB and b) 10dB if the Extended GSM Cell Individual Offset IE is > 10dB. | _ | |
| >BSIC | | 1 | | Base Station Identity Code as defined in ref. [1]. | _ | |
| >>NCC | М | | BIT STRING(3) | Network Colour Code. | - | |
| >>BCC | М | | BIT STRING(3) | Base Station Colour Code. | - | |
| >Band Indicator | М | | ENUMERAT ED(DCS 1800 band, PCS 1900 band,) | Indicates whether or not the BCCH ARFCN belongs to the 1800 band or 1900 band of GSM frequencies. | - | |
| >BCCH ARFCN | М | | INTEGER(01023) | BCCH Frequency as defined in ref. [29]. | _ | |
| >Coverage Indicator | 0 | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | 0 | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |

| > SNA Information | 0 | 9.2.1.52Ca | | YES | ignore |
|---|---|------------|---|-----|--------|
| >GERAN Cell Capability | 0 | 9.2.1.30Fa | | YES | ignore |
| >GERAN Classmark | 0 | 9.2.1.30Fb | | YES | ignore |
| >Extended GSM Cell Individual Offset | 0 | 9.2.1.26Bb | The Extended GSM Cell Individual Offset to be used for UEs using DCHs, for values that exceed the range of the Cell Individual Offset IE. | YES | ignore |

| Range bound | Explanation |
|----------------------|--|
| maxnoofGSMneighbours | Maximum number of neighbouring GSM cells for one cell. |

9.2.1.41D Neighbouring TDD Cell Information

The *Neighbouring TDD Cell Information* IE provides information for 3.84Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|--|-----------------------------|-------------------------------------|-------------|-------------------------|
| Neighbouring TDD Cell Information | | 1 <maxnoo fTDDneighb ours></maxnoo | | | _ | |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >UARFCN | M | | 9.2.1.66 | Corresponds to Nt in ref. [7] | - | |
| >Frame Offset | 0 | | 9.2.1.30 | | _ | |
| >Cell Parameter ID | M | | 9.2.1.8 | | _ | |
| >Sync Case | M | | 9.2.1.54 | | _ | |
| >Time Slot For SCH | C-Case1 | | Time Slot 9.2.1.56 | | _ | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | _ | |
| >SCTD Indicator | M | | 9.2.1.78 | | _ | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | | _ | |
| >DPCH Constant Value | 0 | | 9.2.1.23 | | _ | |
| >PCCPCH Power | 0 | | 9.2.1.43 | | _ | |
| >Restriction State Indicator | 0 | | 9.2.1.48C | | YES | ignore |
| >Coverage Indicator | 0 | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | 0 | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container TDD | 0 | | 9.2.3.1a | | YES | ignore |
| > SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

| Condition | Explanation | | | |
|-----------|--|--|--|--|
| Case1 | The IE shall be present if the Sync Case IE is set to "Case1". | | | |
| Case2 | The IE shall be present if the Sync Case IE is set to "Case2". | | | |

| Range bound | Explanation |
|----------------------|--|
| maxnoofTDDneighbours | Maximum number of neighbouring 3.84Mcps TDD cell for one cell. |

9.2.1.41Dd Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|------------------------|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time Slot LCR | 0 | | 9.2.3.12a | |
| Midamble shift LCR | 0 | | 9.2.3.4C | |

9.2.1.41E Paging Cause

Cause for a CN originated page.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------|----------|-------|---|-----------------------|
| Paging Cause | | | Reference ENUMERAT ED(Terminating Conversatio nal Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, Terminating Low Priority Signalling, , Terminating High Priority Signalling, Terminating - cause unknown) | See in [16] |

9.2.1.41F Paging Record Type

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|-------------|-----------------------|
| - | | _ | Reference | - |
| Paging Record Type | | | ENUMERAT | See ref. [16] |
| | | | ED(IMSI | |
| | | | (GSM-MAP), | |
| | | | TMSI(GSM- | |
| | | | MAP), P- | |
| | | | TMSI (GSM- | |
| | | | MAP), IMSI | |
| | | | (DS-41), | |
| | | | TMSI (DS- | |
| | | | 41),) | |

9.2.1.41Fa Partial Reporting Indicator

This IE indicates if DRNS may report partially successful measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------------------|----------|-------|-------------------------------------|-----------------------|
| Partial Reporting Indicator | | | ENUMERAT ED(partial reporting | |

| | | allowed) | |
|--|--|----------|--|
| | | | |

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9.2.1.41G Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of Measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------------|-----------------------|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nd [6] |
| Primary Scrambling Code | М | | 9.2.1.45 | |

9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the Time slot IE and Midamble shift and burst type IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|------------------------|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time slot | 0 | | 9.2.1.56 | |
| Midamble Shift And Burst Type | 0 | | 9.2.3.4 | |

9.2.1.411 NRT Load Information Value

The NRT Load Information IE indicates the load situation on the cell for the Non Real-Time traffic. Non Real Time traffic corresponds to the Interactive and Background traffic classes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|-----------------------|--|
| Uplink NRT Load Information Value | M | | INTEGER(03) | Mapping of the status: 0: low: The Uplink NRT load is low. 1: medium: The Uplink NRT load is medium. 2: high: Uplink NRT load is high. Probability to admit a new user is low. 3: overloaded: Uplink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow. |
| Downlink NRT Load Information Value | M | | INTEGER(03) | Mapping of the status: 0: low: The Downlink NRT load is low. 1: medium: The Downlink NRT load is medium. 2: high: Downlink NRT load is high. Probability to admitt a new user is low. 3: overloaded: Downlink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow. |

9.2.1.42 Payload CRC Present Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Payload CRC Presence | | | ENUMERAT | |
| Indicator | | | ED(CRC | |
| | | | Included, | |
| | | | CRC not | |
| | | | included) | |

9.2.1.43 PCCPCH Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the PCCPCH Power is the linear sum of the power that is used for transmitting the PCCPCH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| PCCPCH Power | | | NTEGER (- 150400,) | Unit dBmRange –15.0 to 40.0 dBm. |
| | | | 13311133,, | Step size 0.1 dB15.0 shall indicate P≤ -15dBm +40.0 shall indicate P≥ 40dBm. |

9.2.1.44 Primary CPICH Power

Primary CPICH power is the power that is used for transmitting the Primary CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH Power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|--|
| Primary CPICH Power | | | INTEGER (- 100500) | Value = Primary CPICH Power/10 Unit dBm Range -10.0+50.0 Step 0.1 dB |

9.2.1.45 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Primary Scrambling Code | | | INTEGER(0 511) | |

9.2.1.45A Priority Queue ID

The Priority Queue ID IE provides the identity of the Priority Queue.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| Priority Queue ID | | | INTEGER (07) | |

9.2.1.45B Process Memory Size

The Process Memory Size IE is the size of an HARQ process in the DRNS expressed in bits.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-------------------------|-----------------------|
| Process Memory Size | | | ENUMERATED (| |
| - | | | 800, 1600, 2400, 3200, | |
| | | | 4000, 4800, 5600, 6400, | |
| | | | 7200, 8000, 8800, 9600, | |
| | | | 10400, 11200, 12000, | |
| | | | 12800, 13600, 14400, | |
| | | | 15200, 16000, 17600, | |
| | | | 19200, 20800, 22400, | |
| | | | 24000, 25600, 27200, | |
| | | | 28800, 30400, 32000, | |
| | | | 36000, 40000, 44000, | |
| | | | 48000, 52000, 56000, | |
| | | | 60000, 64000, 68000, | |
| | | | 72000, 76000, 80000, | |
| | | | 88000, 96000, 104000, | |
| | | | 112000, 120000, 128000, | |
| | | | 136000, 144000, 152000, | |
| | | | 160000, 176000, 192000, | |
| | | | 208000, 224000, 240000, | |
| | | | 256000, 272000, 288000, | |
| | | | 304000,) | |

9.2.1.46 Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|---|
| Puncture Limit | | | INTEGER (015) | 0: 40% 1: 44 % |
| | | | | 14: 96% 15: 100% (no puncturing) |

9.2.1.46A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| QE-Selector | | | ENUMERAT | |
| | | | ED(selected, | |
| | | | non- | |
| | | | selected) | |

9.2.1.47 RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [2].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|--------------------------|----------------------------|
| RANAP Relocation | | | BIT STRING | The contents is defined in |
| Information | | | | ref. [2]. |

9.2.1.48 Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

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| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|---|------------|-------|--|--|-------------|-------------|
| iz Group Name | 1 Teserioe | Kange | and Reference | Description | Ontiounty | Criticality |
| CHOICE Report | | | | | _ | |
| Characteristics >OnDemand | | | NULL | | | |
| >OnDemand >Periodic | | | NULL | | _ | |
| >>Report Periodicity | М | | 9.2.1.48a | The periodicity with which the DRNS shall send measuremen t reports. | I I | |
| >Event A | | | | • | _ | |
| >>Measurement Threshold | M | | 9.2.1.39 | The threshold for which the DRNS shall trigger a measuremen t report. | - | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | | _ | |
| >Event B | | | 1 | | _ | |
| >>Measurement Threshold | M | | 9.2.1.39 | The threshold for which the DRNS shall trigger a measuremen t report. | T | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | | _ | |
| >Event C | | | | | _ | |
| >>Measurement Increase/Decrease Threshold | М | | 9.2.1.38 | | - | |
| >>Measurement Change Time | M | | 9.2.1.35B | The time within which the measuremen t entity shall rise, in order to trigger a measuremen t report. | - | |
| >Event D | | | | | _ | |
| >>Measurement Increase/Decrease Threshold | M | | 9.2.1.38 | | - | |
| >>Measurement Change Time | M | | 9.2.1.35B | The time within which the measuremen t entity shall fall, in order to trigger a measuremen t report. | _ | |
| >Event E >>Measurement Threshold 1 | M | | Measureme nt Threshold 9.2.1.39 | | - | |
| >>Measurement Threshold 2 | 0 | | Measureme nt Threshold | | ı | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|-------|--|--|-------------|-------------------------|
| | | | 9.2.1.39 | | | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | The hysteresis time in ms | - | |
| >>Report Periodicity | 0 | | 9.2.1.48a | The periodicity with which the DRNS shall send measuremen t reports. | - | |
| >Event F | | | | • | _ | |
| >>Measurement Threshold 1 | М | | Measureme nt Threshold 9.2.1.39 | | - | |
| >>Measurement Threshold 2 | 0 | | Measureme nt Threshold 9.2.1.39 | | - | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | The hysteresis time in ms | - | |
| >>Report Periodicity | 0 | | 9.2.1.48a | The periodicity with which the DRNS shall send measuremen t reports. | - | |
| >Additional Report Characteristics | | | | | _ | |
| >>On Modification | | | | | _ | |
| >>>On Modification | | 1 | | | YES | reject |
| >>>>Measure ment Threshold | | | 9.2.1.39 | | | |

9.2.1.48a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|--------------------------|--|
| CHOICE Report Periodicity | | | | |
| Scale | | | | |
| >millisecond | | | | |
| >>Report Periodicity Value | M | | INTEGER (16000,) | Unit: ms Range: 1060000 ms Step: 10 ms |
| >minute | | | | |
| >>Report Periodicity Value | M | | INTEGER (160,) | Unit: min Range: 160 min Step: 1 min |

9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerned the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| UTRAN Access Point Position with Altitude | 0 | | 9.2.1.75 | | - | |
| IPDL Parameters | 0 | | 9.2.1.31F | | - | |
| DGPS Corrections | 0 | | 9.2.1.19B | | - | |
| GPS Navigation Model and Time Recovery | 0 | | 9.2.1.301 | | - | |
| GPS Ionospheric Model | 0 | | 9.2.1.30H | | - | |
| GPS UTC Model | 0 | | 9.2.1.30L | | - | |
| GPS Almanac | 0 | | 9.2.1.30G | | - | |
| GPS Real-Time Integrity | 0 | | 9.2.1.30J | | - | |
| GPS RX Pos | 0 | | 9.2.1.30K | | - | |
| SFN-SFN Measurement Reference Point Position | 0 | | 9.2.1.74 | | - | |
| Cell Capacity Class Value | 0 | | 9.2.1.5C | | YES | reject |

9.2.1.48B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| CHOICE Information Availability Indicator | М | | | | _ | |
| >Information Available | | | | | _ | |
| >>Requested Data Value | М | | 9.2.1.48A | | _ | |
| >Information not Available | | | NULL | | _ | |

9.2.1.48C Restriction State Indicator

The Restriction state indicator is the identifier indicates whether the cell is "Cell Reserved for Operator Use" or not. It is provided by DRNS and reported to SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|-----------------------|-----------------------|
| Restriction state indicator | | | ENUMERAT | |
| | | | ED(Cell Not | |
| | | | Reserved for | |
| | | | Operator | |
| | | | Use, Cell | |
| | | | Reserved for | |
| | | | Operator | |
| | | | Use,) | |

9.2.1.49 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RL ID | | | INTEGER | |
| | | | (031) | |

9.2.1.49A RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL Specific DCH Information for DCHs. In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------|----------|-----------------------------------|-----------------------------|---|-------------|-------------------------|
| RL Specific DCH Information | | 1 <maxno ofDCHs></maxno | | | ı | |
| >DCH ID | M | | 9.2.1.16 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | ŀ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | Ŧ | |

| Range bound | Explanation | | | |
|-------------|------------------------------------|--|--|--|
| maxnoofDCHs | Maximum number of DCHs for one UE. | | | |

9.2.1.50 RNC-ID

This is the identifier of one RNC in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RNC-ID | | | INTEGER(0. | |
| | | | .4095) | |

9.2.1.50A SAT ID

The SAT ID indicates the identity of the satellite.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SAT ID | | | INTEGER(063) | |

9.2.1.50B RT Load Value

The *RT Load Value* IE indicates the ratio of the load generated by Real Time traffic, relative to the measured Load Value. Real Time traffic corresponds to the Conversational and Streaming traffic classes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|--|
| Uplink RT Load Value | M | | INTEGER(0100) | Value 0 shall indicate the minimum RT load, and 100 shall indicate the maximum RT load. Load should be measured on a linear scale. |
| Downlink RT Load Value | М | | INTEGER(0100) | Value 0 shall indicate the minimum RT load, and 100 shall indicate the maximum RT load. Load should be measured on a linear scale. |

9.2.1.51 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that is assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SCH Time Slot | | | INTEGER(0. | |
| | | | .6) | |

9.2.1.51A Scheduling Priority Indicator

Indicates the relative priority of the FACH, DSCH, USCH or HS-DSCH data frame. Used by the DRNC when scheduling FACH, DSCH, USCH or HS-DSCH traffic.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|---|
| Scheduling Priority Indicator | | | INTEGER(015) | Relative priority of the FACH, DSCH, USCH or HS-DSCH data frame: 0=Lowest Priority |
| | | | | 15=Highest Priority |

9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| SAC | М | | OCTET STRING (2) | |

9.2.1.52A SFN

System Frame Number of the cell, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SFN | | | INTEGER(0. | |
| | | | .4095) | |

9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|-----------------------|--|
| SFN-SFN Change Limit | 0 | | INTEGER(1256) | Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip. |
| Predicted SFN-SFN Deviation Limit | 0 | | INTEGER(1256) | Deviation the Predicted SFN-SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip. |

9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|---|-----------------------|---|
| Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information | | 1 <maxnoofmeasn Cell></maxnoofmeasn | | |
| >UTRAN Cell Identifier | | | 9.2.1.71 | |
| >SFN-SFN Value | М | | 9.2.1.77 | |
| >SFN-SFN Quality | 0 | | INTEGER(0255) | Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Drift Rate | М | | INTEGER(- 100100) | Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
| >SFN-SFN Drift Rate Quality | 0 | | INTEGER(0100) | Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and μ = $E[x]$ is the expectation value of x. |
| >SFN-SFN Measurement Time Stamp | М | | 9.2.1.76 | , |
| Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information | | 0 <maxnoofmeasn Cell-1></maxnoofmeasn | | |
| >UTRAN Cell Identifier | М | | 9.2.1.71 | |

| Range bound | Explanation |
|------------------|---|
| maxnoofMeasNCell | Maximum number of neighbouring cells on which |
| | measurements can be performed. |

9.2.1.52Ca Shared Network Area (SNA) Information

This information element contains a list of Shared Network Areas, identified by the Shared Network Area Code (SNAC, see [1]) which a certain cell belongs to. For a broader description of the SNA access control see [40].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|---|-----------------------|--|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| List of SNAs | | 0 <maxnoofsnas< td=""><td></td><td></td></maxnoofsnas<> | | |
| > SNAC | M | | INTEGER (0 65535) | |

| Range bound | Explanation |
|-------------|---|
| maxnoofSNAs | Maximum number of SNAs one cell can be part of. |

9.2.1.52D SID

The SID IE provides the identity of the Size Index.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SID | | | INTEGER | |
| | | | (07) | |

9.2.1.53 S-RNTI

The S-RNTI identifies the UE in the SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| S-RNTI | | | INTEGER(0. | |
| | | | .2^20 -1) | |

9.2.1.53a S-RNTI Group

The S-RNTI Group identifies a group of UEs in the SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| S-RNTI | M | | 9.2.1.53 | |
| S-RNTI bit mask index | M | | Enumerated(| |
| | | | b1, b2,b19) | |

The S-RNTI group is identified by all S-RNTI values whose bits starting from the most significant bit downto, and including, the bit indicated by S-RNTI bit mask index, are equal to the corresponding bits of the S-RNTI in this IE.

The bits of the S-RNTI in this IE that are less significant than the bit position indicated by the S-RNTI bit mask index shall be ignored.

9.2.1.54 Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case as follows:

- Case 1) SCH and PCCPCH allocated in a single TS#k
- Case 2) SCH allocated in two TS: TS#k and TS#k+8 PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from DRNC to SRNC used for 1.28Mcps TDD, the DRNC shall indicate Sync Case 1 and the SRNC shall ignore it.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Sync Case | | | INTEGER | |
| | | | (12,) | |

9.2.1.54A T1

The T1 IE is used as described in ref [41] subclause 11.6.2.3.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|---|---|
| T1 | | | ENUMERAT ED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 200, 300, 400,) | Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-hs PDU. |

9.2.1.55 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [12].]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| TFCI Presence | | | ENUMERATE | |
| | | | D(Present, | |
| | | | not present) | |

9.2.1.56 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| Time Slot | | | INTEGER | |
| | | | (014) | |

9.2.1.57 ToAWE

ToAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. ToAWE is defined with a positive value relative Latest Time of Arrival (LToA). A data frame arriving after ToAWE gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| ToAWE | | | INTEGER | Unit: msec. |
| | | | (02559) | |

245

9.2.1.58 ToAWS

ToAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. ToAWS is defined with a positive value relative Time of Arrival Window Endpoint (ToAWE). A data frame arriving before ToAWS gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| ToAWS | | | INTEGER | Unit: msec. |
| | | | (01279) | |

9.2.1.58A Traffic Class

This IE indicates the type of application the Radio Bearer is optimised for.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--|-----------------------|
| Traffic Class | | | ENUMERATED (conversational, streaming, interactive, background,) | |

9.2.1.59 Transaction ID

The Transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same Transaction ID.

The Transaction ID is determined by the initiating peer of a procedure.

For procedures addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures for the same UE using the same procedure code, and initiated by the same protocol peer.

For procedures not addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures using the same procedure code, and initiated by the same protocol peer.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|-----------------------|--|
| CHOICE Transaction ID Length | | | | The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long"). |
| >Short | | | | |
| >>Transaction ID Value | М | | INTEGER (0127) | |
| >Long | | | | |
| >>Transaction ID Value | M | | INTEGER (032767) | |

9.2.1.59A Transmitted Carrier Power

The Transmitted Carrier Power IE contains the Transmitted Carrier Power in a cell, as defined in [11] & [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|--|
| Transmitted Carrier Power | | | INTEGER(0100) | According to mapping in [23] and [24]. |

9.2.1.59B T_{UTRAN-GPS} Accuracy Class

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------------------------------|----------|-------|-------------|-------------------------------|
| | | | Reference | |
| T _{UTRAN-GPS} Accuracy Class | | | ENUMERAT | More information about |
| | | | ED(Accuracy | Measurement Accuracy Class is |
| | | | Class A, | included in [23]. |
| | | | Accuracy | |
| | | | Class B, | |
| | | | Accuracy | |
| | | | Class C,) | |

9.2.1.59C T_{UTRAN-GPS} Measurement Threshold Information

The $T_{UTRAN-GPS}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|-----------------------|--|
| T _{UTRAN-GPS} Change Limit | 0 | | INTEGER(1256) | Change of T _{UTRAN-GPS} value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip. |
| Predicted T _{UTRAN-GPS} Deviation Limit | 0 | | INTEGER(1256) | Deviation of the Predicted T _{UTRAN-GPS} from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip. |

9.2.1.59D T_{UTRAN-GPS} Measurement Value Information

The $T_{UTRAN-GPS}$ Measurement Value Information IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|------------------------------|---|
| T _{UTRAN-GPS} | | 1 | | Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999. |
| >MS | М | | INTEGER (016383) | Most Significant Part |
| >LS | M | | INTEGER (04294967 295) | Least Significant Part |
| T _{UTRAN-GPS} Quality | 0 | | INTEGER(0255) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x. |
| T _{UTRAN-GPS} Drift Rate | M | | INTEGER(- 5050) | Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock. |
| T _{UTRAN-GPS} Drift Rate Quality | 0 | | INTEGER(050) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and μ = $E[x]$ is the expectation value of x. |

9.2.1.60 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| Transport Bearer ID | | | INTEGER(04095) | |

9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Transport Bearer Request | | | ENUMERAT | |
| Indicator | | | ED(Bearer | |
| | | | Requested, | |
| | | | Bearer not | |
| | | | Requested, | |
| | | |) | |

9.2.1.62 Transport Layer Address

In case of transport bearer establishment with ALCAP [3] [35], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [3] [35].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see [3].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Transport Layer Address | | | BIT | |
| | | | STRING(11 | |
| | | | 60,) | |

9.2.1.63 Transport Format Combination Set (TFCS)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable to DL Transport Channels.

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC(field2)). The CTFC(field2) value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC(field2) value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC(field2) is spelt out explicitly for each value of TFCI (field2).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------------|---|-----------------------------|---|
| CHOICE DSCH | | | Reference | |
| >No Split in the TFCI | | | | This choice is made if: a) The TFCS refers to the uplink OR b) The mode is FDD and none of the Radio Links of the concerned UE are assigned any DSCH transport channels OR c) The mode is TDD |
| >>TFCS | | 1 <maxnooftfcs ></maxnooftfcs | | The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.] |
| >>>CTFC | М | | INTEGER(0 MaxCTFC) | Integer number calculated according to ref. [16]. |
| >>>CHOICE Gain Factors >>>>Signalled Gain | C- PhysChan | | | |
| Factors | | | | |
| >>>>Gain Factor β _C | M | | INTEGER(0 15) | [FDD - For UL DPCCH or control part of PRACH ref. [21].] [TDD - β for UL DPCH mapping in accordance to [13].] |
| >>>>Gain Factor β _D | М | | INTEGER(0 15) | [FDD - For UL DPDCH or data part of PRACH ref. [21].] [TDD - Should be set to 0 by the sender, and shall be ignored by the receiver.] |
| >>>>Reference TFC nr | 0 | | INTEGER(0 15) | If this TFC is a reference TFC, this IE indicates the reference number |
| >>>>Computed Gain Factors | | | | |
| >>>>Reference TFC nr | M | | INTEGER(0 15) | Indicates the reference TFC to be used to calculate the gain factors for this TFC |
| >There is a split in the TFCI | | | | This choice is made if: a) The TFCS refers to the downlink AND b) The mode is FDD and one of the Radio Links of the concerned UE is assigned one or more DSCH transport channels |
| >>Transport Format Combination_DCH | | 1 <maxtfci_1_c ombs></maxtfci_1_c | | The first instance of the Transport format combination_DCH IE corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on. |
| >>>CTFC(field1) | M | | INTEGER(0 MaxCTFC) | Integer number calculated according to [16] . The calculation of CTFC ignores any DSCH transport channels which may be assigned |
| >>Choice Signalling Method | | | | |

| >>>TFCI Range | | | | |
|--|---|---|---|--|
| >>>>TFC Mapping on DSCH | | 1 <maxnotfclgr oups></maxnotfclgr | | |
| >>>>Max TFCI(field2) Value | М | | INTEGER(1 <maxtfci _2_Combs - 1>)</maxtfci | This is the Maximum value in the range of TFCI(field2) values for which the specified CTFC(field2) applies |
| >>>>CTFC(field 2) | М | | INTEGER(0 MaxCTFC) | Integer number calculated according to [16] The calculation of CTFC ignores any DCH transport channels which may be assigned |
| >>>Explicit | | | | |
| >>>>Transport Format Combination_DSC H | | 1 <maxtfci_2_c ombs></maxtfci_2_c | | The first instance of the Transport format combination_DSCH IE corresponds to TFCI (field 2) = 0, the second to TFCI (field 2) = 1 and so on. |
| >>>>CTFC(field 2) | М | | INTEGER(0 MaxCTFC) | Integer number calculated according to [16] . The calculation of CTFC ignores any DCH transport channels which may be assigned |

| Condition | Explanation |
|-----------|--|
| PhysChan | The choice shall be present if the TFCS concerns a UL DPCH |
| | [FDD – or PRACH channel]. |

| Range bound | Explanation |
|-----------------|--|
| maxnoofTFCs | The maximum number of Transport Format Combinations. |
| maxTFCI_1_Combs | Maximum number of TFCI (field 1) combinations (given by 2 |
| | raised to the power of the length of the TFCI (field 1)). |
| maxTFCI_2_Combs | Maximum number of TFCI (field 2) combinations (given by 2 |
| | raised to the power of the length of the TFCI (field 2)). |
| maxNoTFCIGroups | Maximum number of groups, each group described in terms of a |
| | range of TFCI(field 2) values for which a single value of |
| | CTFC(field2) applies. |
| MaxCTFC | Maximum number of the CTFC value is calculated according to |
| | the following: |
| | <u>I</u> , |
| | $\sum (L_i-1)P_i$ |
| | i=1 |
| | with the notation according to ref. [16]. |

9.2.1.64 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the 2^{nd} Interleaving Mode IE.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|------------------|-------------------------------|---|---|
| Dynamic Transport Format Information | | 1 <maxtfcount></maxtfcount> | | The first instance of the parameter corresponds to TFI zero, the second to 1 and so on. |
| >Number of Transport Blocks | M | | INTEGER (0512) | |
| >Transport Block Size | C – Blocks | | INTEGER (05000) | Unit: Bits |
| >CHOICE Mode | М | | , , | |
| >>TDD | | | | |
| >>>Transmission Time Interval Information | C- TTldynamic | 1 <maxttlcount></maxttlcount> | | |
| >>>>Transmission Time Interval | M | | ENUMERAT ED(10, 20, 40, 80,) | Unit: msec |
| Semi-static Transport Format Information | | 1 | | |
| >Transmission Time Interval | M | | ENUMERAT ED (10, 20, 40, 80, dynamic,) | Unit: msec Value "dynamic" for TDD only |
| >Type of Channel Coding | M | | ENUMERAT ED (No codingTDD, Convolutiona I, Turbo,) | [FDD - The value "No codingTDD" shall be treated as logical error if received] |
| >Coding Rate | C – Coding | | ENUMERAT ED (1/2, 1/3,) | |
| >Rate Matching Attribute | М | | INTEGER (1maxRM) | |
| >CRC size | M | | ENUMERAT ED (0, 8, 12, 16, 24,) | |
| >CHOICE Mode | М | | | |
| >>TDD | | | | |
| >>>2 nd Interleaving Mode | M | | ENUMERAT ED(Frame related, Timeslot related,) | |

| Condition | Explanation |
|------------|---|
| Blocks | The IE shall be present if the Number of Transport Blocks IE is set |
| | to a value greater than 0. |
| Coding | The IE shall be present if Type of Channel Coding IE is set to |
| | "Convolutional" or "Turbo". |
| TTIdynamic | The IE shall be present if the Transmission Time Interval IE in the |
| - | Semi-static Transport Format Information IE is set to "dynamic". |

| Range bound | Explanation |
|-------------|--|
| maxTFcount | The maximum number of different transport formats that can be |
| | included in the Transport format set for one transport channel. |
| maxRM | The maximum number that could be set as rate matching attribute |
| | for a transport channel. |
| maxTTlcount | The amount of different TTI that are possible for that transport |
| | format is. |

9.2.1.65 TrCH Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------|----------|-------|-------------|--------------------------------|
| | | | Reference | |
| TrCH Source Statistics | | | ENUMERAT | 'Speech' = Statistics of the |
| Descriptor | | | ED(Speech, | data corresponds to speech. |
| | | | RRC, | 'RRC' = Statistics of the data |
| | | | Unknown, | corresponds to RRC |
| | | |) | signalling |
| | | | · | 'Unknown' = The statistics of |
| | | | | the data is unknown |

9.2.1.66 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------------------|
| UARFCN | | | INTEGER(016383,) | Corresponds to: 0.0Hz 3276.6MHz |
| | | | | see ref. [6] and ref. [7]. |

9.2.1.67 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| UL FP Mode | | | ENUMERAT | |
| | | | ED(Normal, | |
| | | | Silent) | |

9.2.1.68 UL Interference Level

Void

9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|---|
| Uncertainty semi-major | М | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$ |
| Uncertainty semi-minor | М | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$ |
| Orientation of major axis | М | | INTEGER(0179) | The relation between the IE value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1). The values 90179 shall not be used. |

9.2.1.68B Unidirectional DCH Indicator

The Unidirectional DCH Indicator IE indicates that the DCH is unidirectional.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|--------------------------|------------------------------|
| Unidirectional DCH Indicator | | | ENUMERATED | Downlink DCH only shall only |
| | | | (Downlink DCH only, | be used by TDD. |
| | | | Uplink DCH only) | |

9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|---|
| Uplink SIR | | | INTEGER (- 82173) | Value = Uplink SIR/10 Unit dB Range -8.2+17.3 |
| | | | | Step 0.1 dB |

9.2.1.70 URA ID

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| URA ID | | | INTEGER(0. | |
| | | | .65 535) | |

9.2.1.70A UTRAN Access Point Position

The UTRAN Access Point Position indicates the exact geographical position of the base station antenna.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--|--|
| Latitude Sign | M | | ENUMERAT ED(North, South) | |
| Degrees of Latitude | M | | INTEGER(02 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°) |
| Degrees of Longitude | М | | INTEGER(-2 ²³ 2 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°) |

9.2.1.70B URA Information

The URA Information IE contains URA Information for one cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|---|-----------------------|--------------------------------|
| URA ID | M | | 9.2.1.70 | |
| Multiple URAs Indicator | M | | 9.2.1.41 | |
| RNCs with Cells in the | | 0 | | Other RNCs having at least |
| Accessed URA | | <maxrncinura-< td=""><td></td><td>one cell in the URA identified</td></maxrncinura-<> | | one cell in the URA identified |
| | | 1> | | by the URA ID IE. |
| >RNC-ID | M | | 9.2.1.50 | |

| Range Bound | Explanation |
|-------------|-----------------------------------|
| maxRNCinURA | Maximum number of RNC in one URA. |

9.2.1.71 UTRAN Cell Identifier (UC-ID)

The UC-ID (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| RNC-ID | M | | 9.2.1.50 | |
| C-ID | M | | 9.2.1.6 | |

9.2.1.72 Neighbouring TDD Cell Information LCR

The Neighbouring TDD Cell Information LCR IE provides information for 1.28Mc ps TDD cells that are a neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|----------------|-------------------------------------|-------------|----------------------|
| | | | Reference | | | |
| Neighbouring TDD Cell Information LCR | | 1 <maxno ofLCRTDD neighbour s></maxno | | | _ | |
| >C-ID | М | 02 | 9.2.1.6 | | _ | |
| >UARFCN | М | | 9.2.1.66 | Corresponds to Nt in ref. [7] | - | |
| >Frame Offset | 0 | | 9.2.1.30 | | _ | |
| >Cell Parameter ID | M | | 9.2.1.8 | | _ | |
| >SCTD Indicator | M | | 9.2.1.78 | | _ | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | | _ | |
| >DPCH Constant Value | 0 | | 9.2.1.23 | | _ | |
| >PCCPCH Power | 0 | | 9.2.1.43 | | _ | |
| >Restriction State Indicator | 0 | | 9.2.1.48C | | _ | |
| >Coverage Indicator | <u>O</u> | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | <u>O</u> | | 9.2.1.2C | | <u>YES</u> | <u>ignore</u> |
| >HCS Prio | <u>O</u> | | 9.2.1.30N | | <u>YES</u> | <u>ignore</u> |
| >Cell Capability Container TDD LCR | 0 | | 9.2.3.1b | | YES | ignore |
| > SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

| Range bound | Explanation |
|-------------------------|--|
| maxnoofLCRTDDneighbours | Maximum number of neighbouring 1.28Mcps TDD cell for one cell. |

9.2.1.73 Permanent NAS UE Identity

This element is used to identify the UE in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Choice Permanent NAS UE | | | | |
| Identity | | | | |
| >IMSI | | | | |
| >>IMSI | M | | 9.2.1.31 | |

9.2.1.74 SFN-SFN Measurement Reference Point Position

The SFN-SFN Measurement Reference Point Position indicates the exact geographical position of the SFN-SFN measurement reference point. The altitude shall be included when available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | 0 | | 9.2.1.2B | |

UTRAN Access Point Position with Altitude 9.2.1.75

The UTRAN Access Point Position with Altitude indicates the exact geographical position of the base station antenna. The altitude shall be included when available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|--------------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | 0 | | 9.2.1.2B | |

SFN-SFN Measurement Time Stamp 9.2.1.76

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|---|
| CHOICE Mode | | | | |
| >FDD | | | | |
| >>SFN | М | | 9.2.1.52A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| >TDD | | | | |
| >>SFN | M | | 9.2.1.52A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| >>Time Slot | M | | 9.2.1.56 | Indicates the Time Slot of the reference cell at which this measurement has been performed. |

9.2.1.77 SFN-SFN Value

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-------------------------------|
| CHOICE Mode | | | | |
| >FDD | | | | |
| >>SFN-SFN | M | | INTEGER(0. . 614399) | According to mapping in [23]. |
| >TDD | | | | |
| >>SFN-SFN | M | | INTEGER(0. . 40961) | According to mapping in [24]. |

9.2.1.78 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-------------------------------------|-----------------------|
| SCTD Indicator | | | ENUMERAT ED(active, inactive) | |

9.2.1.79 Congestion Cause

The Congestion Cause IE indicates the cause of a congestion situation:

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|---|--------------------------|
| Congestion Cause | | | ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources,) | |

The meaning of the different congestion cause values is described in the following table:

| Congestion cause | Meaning |
|----------------------------|---|
| UTRAN Dynamic Resources | UL and/or DL resource congestion situation mainly caused by the UL and/or DL UTRAN Dynamic Resources. This type of congestion situation is, e.g. related to the limitation of the DL transmitted carrier power of the cell(s), or the UL Interference situation in the concerned cell(s). |
| UTRAN Semistatic Resources | UL and/or DL resource congestion situation mainly related to UTRAN Semistatic Resources (e.g. channelisation codes, Node-B resources,). |

9.2.2 FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

9.2.2.a ACK-NACK Repetition Factor

The ACK-NACK Repetition Factor IE indicates the consecutive repetition of the ACK and NACK.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------------|----------|-------|-----------------------|-----------------------|
| ACK-NACK Repetition | | | INTEGER | Step: 1 |
| Factor | | | (1,4,) | |

9.2.2.b ACK Power Offset

The ACK Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|------------------|----------|-------|-----------------------|--|
| ACK Power Offset | | | INTEGER (08,) | According to mapping in ref. [21] subclause 4.2.1. |

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-----------------------|--|---|
| CM Configuration Change CFN | M | | CFN 9.2.1.9 | |
| Transmission Gap Pattern Sequence Status | | 0 <maxtgps></maxtgps> | | If the group is not present, none of the pattern sequences are activated. |
| >TGPSI Identifier | M | | INTEGER(1. . <maxtgps >)</maxtgps | Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be activated.</maxtgps> |
| >TGPRC | M | | INTEGER(0. .511) | The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity. |
| >TGCFN | М | | CFN 9.2.1.9 | Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence. |

| Range bound | Explanation | | |
|-------------|--|--|--|
| maxTGPS | Maximum number of active pattern sequences. Value 6. | | |

9.2.2.B Adjustment Period

Adjustment Period IE defines the period to be used for power balancing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| Adjustment Period | | | INTEGER | Unit: Frames |
| | | | (1 256) | |

9.2.2.C Adjustment Ratio

Adjustment Ratio IE (Radj) defines the convergence rate used for the associated Adjustment Period.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|--------------------------|--|
| Adjustment Ratio | | | INTEGER (0 100) | The Adjustment Ratio is given with a granularity of 0.01 0 -> 0.00 1 -> 0.01 |
| | | | | 100 -> 1.00 |

9.2.2.D Cell Capability Container FDD

The Cell Capability Container FDD indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|---|
| Cell Capability Container FDD | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Flexible Hard Split Support Indicator. The second bit: Delayed Activation Support Indicator. The third bit: HS-DSCH Support Indicator. The fourth bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.2.1 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip Offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Chip Offset | | | INTEGER (038399) | Unit: Chips |

9.2.2.2 Closed Loop Mode1 Support Indicator

The Closed Loop Mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| Closed Loop Mode1 Support | | | ENUMERAT | |
| Indicator | | | ED(Closed | |
| | | | loop mode1 | |
| | | | Supported, | |
| | | | Closed loop | |
| | | | mode1 not | |
| | | | supported). | |

9.2.2.3 Closed Loop Mode2 Support Indicator

The Closed Loop Mode2 Support Indicator indicates whether the particular cell is capable to support Closed loop mode2 or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| Closed Loop Mode2 Support | | | ENUMERAT | |
| Indicator | | | ED(Closed | |
| | | | loop mode2 | |
| | | | Supported, | |
| | | | Closed loop | |
| | | | mode2 not | |
| | | | supported). | |

9.2.2.3A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------------|----------|-------|--------------------------------------|--|
| Closed Loop Timing Adjustment Mode | | | ENUMERAT ED(Offset1, Offset2,) | According to [10] subclause 7.1: Offset1 = slot(j+1)mod15 Offset2 = slot(j+2)mod15 |

Compressed Mode Method 9.2.2.4

Void

9.2.2.4A **DCH FDD Information**

The DCH FDD Information IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| DCH FDD Information | | 1 <maxno ofDCHs></maxno | | | _ | |
| >Payload CRC Presence Indicator | M | | 9.2.1.42 | | - | |
| >UL FP Mode | M | | 9.2.1.67 | | _ | |
| >ToAWS | M | | 9.2.1.58 | | _ | |
| >ToAWE | M | | 9.2.1.57 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | M | | 9.2.1.16 | | _ | |
| >>TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >>Transport Format Set | M | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | M | | 9.2.1.64 | For the DL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the UL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the DL. | _ | |
| >>Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | M | | 9.2.1.29 | | _ | |
| >>QE-Selector | M | | 9.2.1.46A | | _ | |
| >>DRAC control | M | | 9.2.2.13 | | _ | |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | 0 | | 9.2.1.68B | | YES | ignore |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.2.5 **D-Field Length**

Void

9.2.2.6 **Diversity Control Field**

Void.

9.2.2.7 **Diversity Indication**

Void.

9.2.2.8 **Diversity Mode**

Define the diversity mode to be applied.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| Diversity Mode | | | ENUMERAT | |
| | | | ED(None, | |
| | | | STTD, | |
| | | | Closed loop | |
| | | | mode 1, | |
| | | | Closed loop | |
| | | | mode2,) | |

9.2.2.9 **DL DPCH Slot Format**

Indicates the slot format used in DPCH in DL, according to ref. [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|-----------------------|
| DL DPCH Slot Format | | | INTEGER | |
| | | | (016,) | |

9.2.2.9A **DL DPCH Timing Adjustment**

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required. It also indicates whether the timing adjustment shall consist of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|---------------------------|---|
| DL DPCH Timing Adjustment | | | ENUMERAT ED(timing | The size of the timing adjustment is 256 chips. |
| | | | advance, timing delay) | |

DL Power 9.2.2.10

Void

9.2.2.10A DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|------------------------------|------------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| Power Adjustment Type | M | | 9.2.2.28 | | _ | |
| DL Reference Power | C-Common | | DL power 9.2.1.21A | Power on DPCH | _ | |
| DL Reference Power Information | C-Individual | 1 <maxnoof RLs></maxnoof | | | _ | |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Reference Power | М | | DL power 9.2.1.21A | Power on DPCH | _ | |
| Max Adjustment Step | C- CommonOrIn dividual | | 9.2.2.23 | | 1 | |
| Adjustment Period | C- CommonOrIn dividual | | 9.2.2.B | | - | |
| Adjustment Ratio | C- CommonOrIn dividual | | 9.2.2.C | | - | |

| Condition | Explanation |
|--------------------|--|
| Common | The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common". |
| Individual | The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Individual". |
| CommonOrIndividual | The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common' or 'Individual". |

| Range Bound | Explanation | | |
|-------------|---|--|--|
| maxnoofRLs | Maximum number of Radio Links for a UE. | | |

9.2.2.10B DL Power Balancing Activation Indicator

The DL Power Balancing Activation Indicator IE indicates that the power balancing is activated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|-----------------------|
| DL Power Balancing | | | ENUMERATED(DL | |
| Activation Indicator | | | Power Balancing | |
| | | | Activated). | |

9.2.2.10C DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|------------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| Common DL Reference Power | 0 | | DL power 9.2.1.21A | Power on DPCH | _ | |
| Individual DL Reference Power Information | | 0 <maxnoof RLs></maxnoof | | | _ | |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Reference Power | М | | DL power 9.2.1.21A | Power on DPCH | _ | |

| Range bound | Explanation | | |
|-------------|---------------------------------|--|--|
| maxnoofRLs | Maximum number of RLs for a UE. | | |

9.2.2.10D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|--------------------------|-----------------------|
| DL Power Balancing | | | ENUMERATED(DL | |
| Updated Indicator | | | Power Balancing | |
| | | | Updated). | |

9.2.2.11 DL Scrambling Code

DL Scrambling code to be used by the RL. One cell may have multiple DL Scrambling codes available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|----------------------------|
| DL Scrambling Code | | | INTEGER | 0= Primary scrambling code |
| | | | (015) | of the cell |
| | | | | 115= Secondary |
| | | | | scrambling code |

9.2.2.12 Downlink Frame Type

Void

9.2.2.12A DPC Mode

The DPC Mode IE indicates the DPC mode to be applied [10].

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------|----------|-------|-------------|-------------------------------|
| | | | Reference | |
| DPC Mode | | | ENUMERAT | Mode0: The DRNS shall |
| | | | TED | estimate the UE transmitted |
| | | | (Mode0, | TPC command and update the |
| | | | Mode1, | DL power in every slot |
| | | |) | Mode1: The DRNS shall |
| | | | | estimate the UE transmitted |
| | | | | TPC command over three slots |
| | | | | and shall update the DL power |
| | | | | in every three slots |

9.2.2.13 DRAC Control

This IE indicates whether the DCH is control by DRAC or not.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------|----------|-------|-------------|---------------------------|
| | | | Reference | |
| DRAC Control | | | ENUMERAT | Requested means that |
| | | | ED | DCH is controlled by DRAC |
| | | | (Requested, | - |
| | | | Not- | |
| | | | Requested) | |

9.2.2.13A DSCH FDD Information

The DSCH FDD Information IE provides information for DSCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|------------------------------------|-----------------------------|---|-------------|-------------------------|
| DSCH Specific FDD Information | | 1 <maxno ofDSCHs></maxno | | | _ | |
| >DSCH ID | М | | 9.2.1.26A | | _ | |
| >TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >Transport Format Set | M | | 9.2.1.64 | For DSCH | _ | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >BLER | M | | 9.2.1.4 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| PDSCH RL ID | М | | RL ID 9.2.1.49 | | _ | |
| TFCS | M | | 9.2.1.63 | For DSCH | _ | |
| Enhanced DSCH PC | 0 | | 9.2.2.13D | | YES | ignore |

| Range bound | Explanation |
|--------------|-------------------------------------|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |

9.2.2.13B DSCH FDD Information Response

The DSCH FDD Information Response IE provides information for DSCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|------------------------------------|-----------------------------|--|-------------|-------------------------|
| DSCH Specific FDD Information Response | | 1 <maxno ofDSCHs></maxno | | | _ | |
| >DSCH ID | М | | 9.2.1.26A | | _ | |
| >DSCH Flow Control Information | М | | 9.2.1.26B | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| PDSCH Code Mapping | M | | 9.2.2.27A | PDSCH code mapping to be used | _ | |

| Range bound | Explanation |
|--------------|-------------------------------------|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |

9.2.2.13Bb DSCH-RNTI

Void.

9.2.2.13C FDD DCHs To Modify

The FDD DCHs To Modify IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| FDD DCHs To Modify | | 1 <maxno ofDCHs></maxno | | | _ | |
| >UL FP Mode | 0 | | 9.2.1.67 | | _ | |
| >ToAWS | 0 | | 9.2.1.58 | | _ | |
| >ToAWE | 0 | | 9.2.1.57 | | _ | |
| >Transport Bearer Request Indicator | М | | 9.2.1.61 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | M | | 9.2.1.16 | | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the DL. | _ | |
| >>Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | 0 | | 9.2.1.29 | | _ | |
| >>DRAC Control | 0 | | 9.2.2.13 | | _ | |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | 0 | | 9.2.1.58A | | YES | ianore |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.2.13D Enhanced DSCH PC

The Enhanced DSCH PC includes all the parameters which are needed for DSCH power control improvement during soft handover.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH PC Wnd | M | | 9.2.2.13G | |
| Enhanced DSCH PC Counter | M | | 9.2.2.13E | |
| Enhanced DSCH Power Offset | М | | 9.2.2.13H | |

9.2.2.13E Enhanced DSCH PC Counter

The Enhanced DSCH PC Counter parameter gives the number of correct cell ID command to receive in the averaging window, Enhance DSCH PC Wnd IE, see ref. [10] subclause 5.2.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH PC | | | INTEGER(1. | |
| Counter | | | .50) | |

9.2.2.13F Enhanced DSCH PC Indicator

The Enhanced DSCH PC Indicator indicates whether Enhanced DSCH PC is in use by the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|--|-----------------------|
| Enhanced DSCH PC Indicator | | | ENUMERAT ED(Enhance d DSCH PC Active in the UE, Enhanced DSCH PC not Active in the UE) | |

9.2.2.13G Enhanced DSCH PC Wnd

The Enhanced DSCH PC Wnd parameter shows the window size to decide primary or non-primary cell, see ref. [10] subclause 5.2.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH PC Wnd | | | INTEGER(1. .10) | |

9.2.2.13H **Enhanced DSCH Power Offset**

The Enhanced DSCH Power Offset parameter gives the power offset to be added on DSCH when cell is decided to be primary.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH Power Offset | | | INTEGER(- 150) | Unit dB, step 1 dB |

9.2.2.131Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|-----------------------|---|
| Enhanced Primary CPICH Ec/No | | | INTEGER(0. .49) | According to the mapping of the Primary CPICH Ec/Io UE measurement defined in ref. [23] and [24] |

9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|-----------------------|--|
| FDD DL Channelisation Code Number | | | INTEGER(0. . 511) | According to the mapping in [27]. |
| | | | , | The maximum value is equal to the DL spreading factor –1 |

9.2.2.14A FDD DL Code Information

The FDD DL Code Information IE provides FDD DL Code information for all DPCHs of one Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---------------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| FDD DL Code Information | | 1 <maxnoof DLCodes</maxnoof | | | _ | |
| >DL Scrambling Code | M | | 9.2.2.11 | | _ | |
| >FDD DL Channelisation Code Number | М | | 9.2.2.14 | | _ | |
| >Transmission Gap Pattern Sequence Scrambling Code Information | 0 | | 9.2.2.47B | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofDLCodes | Maximum number of DL Channelisation Codes for one UE. |

9.2.2.15 FDD S-CCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 c hips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|---|
| FDD S-CCPCH Offset | | | INTEGER(0. . 149) | 0: 0 chip 1: 256 chip 2: 512 chip |
| | | | | 149: 38144 chip ref. [8] |

9.2.2.16 FDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| FDD TPC Downlink Step | | | ENUMERAT | |
| Size | | | ED(0.5, 1, | |
| | | | 1.5, 2,) | |

9.2.2.16A First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| First RLS Indicator | | | ENUMERAT | |
| | | | ED(first RLS, | |
| | | | not first RLS) | |

9.2.2.17 Gap Position Mode

Void.

9.2.2.18 Gap Period (TGP)

Void.

9.2.2.19 Gap Starting Slot Number (SN)

Void

9.2.2.19a HS-DSCH FDD Information

The HS-DSCH FDD Information IE provides information for HS-DSCH MAC-d flows to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|-----------------|--|--|---|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information | | 1 <maxno ofMACdFl ows></maxno | | | - | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| >Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| Priority Queue Information | | 1 <maxno ofPrioQue ues></maxno | | | _ | |
| >Priority Queue ID | М | | 9.2.1.45A | | _ | |
| >Associated HS-DSCH MAC-d Flow | М | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >T1 | М | | 9.2.1.54A | | _ | |
| >Discard Timer | 0 | | 9.2.1.19C | | | |
| >MAC-hs Window Size | M | | 9.2.1.34C | | _ | |
| >MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | _ | |
| >MAC-d PDU Size Index | | 1 <maxno ofMACdP DUindexes</maxno | | | _ | |
| >>SID | М | | 9.2.1.52D | | _ | |
| >>MAC-d PDU Size | М | | 9.2.1.34A | | _ | |
| UE Capabilities information | | 1 | | | - | |
| >HS-DSCH Physical Layer Category | М | | 9.2.1.30Oa | | _ | |
| >MAC-hs reordering buffer size | М | | 9.2.1.34Ab | | _ | |
| CQI Feedback Cycle k | M | | 9.2.2.24a | | _ | |
| CQI Repetition Factor | C- CQICyclek | | 9.2.2.24c | | _ | |
| ACK-NACK Repetition Factor | M | | 9.2.2.a | | - | |
| CQI Power Offset | M | ļ | 9.2.2.24b | | _ | |
| ACK Power Offset | M | <u> </u> | 9.2.2.b | | _ | |
| NACK Power Offset | M | | 9.2.2.26a | | _ | |
| HS-SCCH Power Offset | 0 | 1 | 9.2.2.19d | | _ | |

| Condition | Explanation |
|-----------|--|
| CQICyclek | The IE shall be present if the CQI Feedback Cycle k IE is set to |
| | a value greater than 0. |

| Range bound | Explanation | | | |
|-----------------------|--|--|--|--|
| MaxnoofMACdFlows | Maximum number of MAC-d flows. | | | |
| MaxnoofPrioQueues | Maximum number of Priority Queues. | | | |
| maxnoofMACdPDUindexes | Maximum number of MAC-d PDU Size Indexes (SIDs). | | | |

9.2.2.19b HS-DSCH FDD Information Response

The *HS-DSCH FDD Information Response* IE provides information for HS-DSCH MAC-d flows that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information Response | | 1 <maxno ofMACdFl ows></maxno | | | - | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >HS-DSCH Initial Capacity Allocation | 0 | | 9.2.1.30Na | | _ | |
| HS-SCCH Specific Information Response | | 1 <maxno ofHSSCC Hcodes></maxno | | | _ | |
| >Code Number | М | | INTEGER(0127) | | _ | |
| Measurement Power Offset | 0 | | 9.2.2.24d | | _ | |
| CHOICE HARQ Memory Partitioning | М | | | | _ | |
| >Implicit | | | | | _ | |
| >>Number of Processes | М | | INTEGER (18,) | | - | |
| >Explicit | | | | | _ | |
| >>HARQ Memory Partitioning Infomation | | 1 <maxno ofHARQpr ocesses></maxno | | | _ | |
| >>>Process Memory Size | М | | 9.2.1.45B | See [16] | _ | |

| Range bound | Explanation |
|----------------------|-----------------------------------|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofHSSCCHcodes | Maximum number of HS-SCCH codes. |
| maxnoofHARQprocesses | Maximum number of HARQ processes. |

9.2.2.19c HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|-------------------------------|----------|-------|-----------------------------|-------------------------|-------------|-------------------------|
| HS-SCCH Code Change Indicator | 0 | | 9.2.1.30R | | _ | |
| CQI Feedback Cycle k | 0 | | 9.2.2.24a | | _ | |
| CQI Repetition Factor | 0 | | 9.2.2.24c | | _ | |
| ACK-NACK Repetition Factor | 0 | | 9.2.2.a | | _ | |
| CQI Power Offset | 0 | | 9.2.2.24b | | _ | |
| ACK Power Offset | 0 | | 9.2.2.b | | _ | |
| NACK Power Offset | 0 | | 9.2.2.26a | | _ | |

9.2.2.19d HS-SCCH Power Offset

The HS-SCCH Power Offset IE indicates the Power offset relative to the pilot bits on the DL DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|----------------------|----------|-------|-----------------------|---------------------------------------|
| HS-SCCH Power Offset | | | INTEGER (0255) | Step 0.25 dB, range -32- +31.75 dB |

9.2.2.20 IB_SG_POS

First position of an Information Block segment in the SFN cycle (IB_SG_POS < IB_SG_REP).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------------|
| IB_SG_POS | | | INTEGER | Only even positions allowed. |
| | | | (04094) | Reference [16] |

9.2.2.21 IB SG REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod IB_SG_REP = IB_SG_POS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|---|--|
| IB_SG_REP | | | ENUMERAT ED(4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096) | Repetition period for the IB segment in frames |

9.2.2.21a Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links for the UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Inner Loop DL PC Status | | | ENUMERAT | |
| | | | ED(Active, | |
| | | | Inactive) | |

9.2.2.21A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, DRNS shall use the limited power increase algorithm as specified in [10], subclause 5.2.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| Limited Power Increase | | | ENUMERAT | |
| | | | ED(Used, | |
| | | | Not used,) | |

9.2.2.21B IPDL FDD Parameters

The IPDL FDD Parameters IE provides the information for the IPDL Configuration applied in FDD mode.

| IE/Group name | Presence | Range | IE Type and | Semantics Description |
|-----------------------|----------|-------|--------------|-----------------------|
| | | | Reference | |
| IP spacing FDD | M | | ENUMERAT | See [10] |
| | | | ED(5,7,10,1 | |
| | | | 5,20,30,40,5 | |
| | | | 0,) | |
| IP length | M | | ENUMERAT | See [10] |
| | | | ED(5,10,) | |
| IP offset | M | | INTEGER(0. | See [10] |
| | | | .9) | |
| Seed | M | | INTEGER(0. | See [10] |
| | | | .63) | |
| Burst mode parameters | 0 | | 9.2.1.4B | |

9.2.2.21C Length of TFCI2

This IE indicates the length measured in number of bits of TFCI(field 2). The length of TFCI (field 1) is set to the 10's complement of the length of TFCI(field 2).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|-----------------------|-----------------------|
| Length of TFCI2 | | | INTEGER(1. | |
| | | | .10) | |

9.2.2.22 Max Adjustment Period

Void.

9.2.2.23 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustments shall be maximum 1 dB. This value does not include the DL inner loop PC adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| Max Adjustment Step | | | INTEGER(1. | Slots |
| | | | .10) | |

9.2.2.24 Max Number of UL DPDCHs

Maximum number of uplink DPDCHs during the connection. Needed by the rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Max Number of UL DPDCHs | | | INTEGER (16) | |

9.2.2.24a CQI Feedback Cycle k

The CQI Feedback Cycle k IE provides the duration of the CQI feedback cycle.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|-----------------------|
| CQI Feedback Cycle k | | | ENUMERAT | Unit ms |
| - | | | ED (0, 2, 4, | |
| | | | 8, 10, 20, 40, | |
| | | | 80, 160,) | |

9.2.2.24b CQI Power Offset

The CQI Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|------------------|----------|-------|-----------------------|------------------------------|
| CQI Power Offset | | | INTEGER | According to mapping in ref. |
| | | | (08,) | [21] subclause 4.2.1. |

9.2.2.24c CQI Repetition Factor

The CQI Repetition Factor IE indicates the consecutive repetition of the CQI.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| CQI Repetition Factor | | | INTEGER (14) | Step: 1 |

9.2.2.24d Measurement Power Offset

The Measurement Power Offset IE is used as defined in [10] subclause 6A.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|--------------------------|--|
| Measurement Power Offset | | | INTEGER (-1226) | Unit: dB Range: -613dB Step: 0.5dB |

9.2.2.24A Min DL Channelisation Code Length

Void

9.2.2.25 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH during the connection. Needed by rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------------------|----------|-------|--|-----------------------|
| Min UL Channelisation Code Length | | | ENUMERAT ED(4,8,16, 32,64,128, 256) | |

9.2.2.26 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Multiplexing Position | | | ENUMERAT | |
| | | | ED(Fixed, | |
| | | | Flexible) | |

9.2.2.26a NACK Power Offset

The NACK Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------|----------|-------|-----------------------|------------------------------|
| NACK Power Offset | | | INTEGER | According to mapping in ref. |
| | | | (08) | [21] subclause 4.2.1. |

9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Number of DL | | | INTEGER(1. | |
| Channelisation Codes | | | .8) | |

9.2.2.27 Pattern Duration (PD)

Void

9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| PCP Preamble | | | INTEGER(07,) | In number of frames. |

9.2.2.27A PDSCH Code Mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH. A fourth option is also provided which allows the UTRAN to replace individual entries in the TFCI(field 2) to PDSCH code mapping table with new PDSCH code values.

Method #1 - Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. Each TFCI(field2) value corresponds to a given PDSCH channelisation code or set of PDSCH codes for multi-code. The DRNS maps TFCI(field2) values to PDSCH codes in the following way:

- The PDSCH codes used for TFCI(field 2) = 0 are given by the SF of the Code Group 1 (i.e. first instance in *PDSCH code mapping*) and the code numbers between CodeNumber₀ (where CodeNumber₀ = "Start code number" of Code Group 1) and CodeNumber₀ + "multi-code info" 1.
- This continues with unit increments in the value of TFCI (Field2) mapped to either unit increments in code numbers or groups of contiguous code numbers in case of multi-code, this until "Stop code number" is reached: So the PDSCH codes used for TFCI(field 2) = k (for k > 0 and k < ("Stop code number" "Start code number" + 1) DIV k) are given by the SF of the Code Group 1 and the code numbers between CodeNumber_k = CodeNumber_{k-1} + "multi-code info" and CodeNumber_k + "multi-code info" 1.
 If "Stop code number" = "Start code number" + "multi-code info" 1 then this is to be interpreted as defining the mapping between the channelisation code(s) and a single TFCI.
- The DRNS constructs its mapping table by repeating this process for all the Code Groups in the order they are instantiated in *PDSCH code mapping*. The first TFCI(field 2) value used in each group is the largest TFCI(field 2) value reached in the previous group incremented by one.

Note: This imposes that "Stop code number"— "Start code number"+ 1 is a multiple of the value "multi-code info" for each instance of *PDSCH code mapping*. Furthermore, in the case in which multi-code is not used, then "multi-code info" = 1 and the process above also applies.

Method #2 - Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code or set of PDSCH codes for multi-code.

- The set of PDSCH codes specified in the first instance applies for all values of TFCI(field 2) between 0 and the specified "Max TFCI(field2)".
- The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous instance incremented by one.

 So the set of PDSCH codes specified in a given instance apply for all the values of TFCI(field 2) between the "Max TFCI(field2) value" specified in the previous instance incremented by one and the specified "Max TFCI(field2)" of the considered instance.

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #3 - Explicit

The mapping between TFCI (field 2) value and PDSCH channelisation code (or a set of PDSCH codes for multicode) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #4 - Replace

The "TFCI (field2)" value(s) for which the mapping to PDSCH channelisation code (or a set of PDSCH codes for multicode) is changed are explicitly signalled. Furthermore, the new mapping between TFCI(field 2) value and PDSCH channelisation code(s) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

| IE/Group name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|------------------|--|
| | | | Reference | |
| DL Scrambling Code | M | | INTEGER (015) | Scrambling code on which PDSCH is transmitted. |
| | | | (013) | 0= Primary scrambling code of |
| | | | | the cell |
| | | | | 115 = Secondary |
| | | | | scrambling code |

| Choice Signalling Method | | | | |
|--------------------------------|-----|--|------------------------|---|
| >Code Range | | | | |
| >>PDSCH Code Mapping | | 1 <maxno CodeGrou</maxno | | |
| | | ps> | | |
| >>>Spreading Factor | М | 7 | ENUMERAT | |
| | | | ED(4, 8, 16, | |
| | | | 32, 64, 128, 256) | |
| >>>Multi-code Info | M | | INTEGER(1. | |
| | | | .16) | |
| >>>Start Code Number | М | | INTEGER(0. | PDSCH code start, Numbering |
| | | | .maxCodeNu mComp-1) | as described in [16] |
| >>>Stop Code Number | М | | INTEGER(0. | PDSCH code stop, Numbering |
| | | | .maxCodeNu | as described in [16] |
| | | | mComp-1) | |
| >TFCI Range >>DSCH Mapping | | 4 | | |
| >>DSCH wapping | | 1 <maxno TFCIGroup</maxno | | |
| | | s> | | |
| >>>Max TFCI(field2) Value | М | | INTEGER(1. | This is the maximum value in |
| | | | .1023) | the range of TFCI(field 2) |
| | | | | values for which the specified PDSCH code applies |
| >>>Spreading Factor | М | | ENUMERAT | SF of PDSCH code |
| l and the second of the second | | | ED(4, 8, 16, | |
| | | | 32, 64, 128, | |
| >>>Multi-code Info | M | | 256) INTEGER(1. | |
| >>>IVIditi-code IIIIO | IVI | | .16) | |
| >>>Code Number | М | | INTEGER(0. | Code number of PDSCH code. |
| | | | .maxCodeNu | Numbering as described in |
| Frontie it | | | mComp-1) | [16] |
| >Explicit >>PDSCH Code | | 1 <maxtf< td=""><td></td><td>The first instance of the</td></maxtf<> | | The first instance of the |
| 771 20011 0000 | | CI_2_Com | | parameter PDSCH code |
| | | bs> | | corresponds to TFCI (field2) = |
| | | | | 0, the second to TFCI(field 2) |
| >>>Spreading Factor | M | | ENUMERAT | = 1 and so on. SF of PDSCH code |
| produing radio | "" | | ED(4, 8, 16, | Ci di Been eda |
| | | | 32, 64, 128, | |
| NA III | N 4 | | 256) | |
| >>>Multi-code Info | M | | INTEGER(116) | |
| >>>Code Number | M | | INTEGER(0. | Code number of PDSCH code. |
| | | | .maxCodeNu | Numbering as described in |
| | | | mComp-1) | [16] |
| >Replace >>Replaced PDSCH code | | 1 <maxtf< td=""><td></td><td></td></maxtf<> | | |
| >>Nepiaced F Doori code | | CI_2_Com | | |
| | | bs> | | |
| >>>TFCI (field2) | М | | INTEGER(1. | Value of TFCI(field 2) for |
| | | | .1023) | which PDSCH code mapping |
| >>>Spreading Factor | M | | ENUMERAT | will be changed SF of PDSCH code |
| programing ractor | | | ED(4, 8, 16, | 3.1.200.1.3000 |
| | | | 32, 64, 128, | |
| NA III | N 4 | | 256) | |
| >>>Multi-code Info | M | | INTEGER(116) | |
| >>>Code Number | M | | INTEGER(0. | Code number of PDSCH code. |
| | | | .maxCodeNu | Numbering as described in |
| | | | mComp-1) | [16] |

| Range Bound | Explanation |
|-----------------|---|
| maxCodeNumComp | Maximum number of codes at the defined spreading |
| | factor, within the complete code tree. |
| maxTFCI_2_Combs | Maximum number of TFCI (field 2) combinations |
| | (given by 2 raised to the power of the length of the TFCI field 2) |
| maxNoTFCIGroups | Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single PDSCH code applies. |
| maxNoCodeGroups | Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies. |

9.2.2.27B Phase Reference Update Indicator

The Phase Reference Update Indicator IE indicates that the phase reference for the radio link needs to be changed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| Phase Reference Update | | | ENUMERATED | |
| indicator | | | (Phase | |
| | | | Reference | |
| | | | needs to be | |
| | | | changed) | |

9.2.2.28 Power Adjustment Type

Defines the characteristic of the power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Power Adjustment Type | | | ENUMERAT | |
| | | | ED(None, | |
| | | | Common, | |
| | | | Individual) | |

9.2.2.29 Power Control Mode (PCM)

Void.

9.2.2.30 Power Offset

This IE defines a power offset respect the Downlink transmission power of a DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------------|
| Power Offset | | | | Unit dB, Step 0.25 dB, range |
| | | | INTEGER(0. | 0-6 dB |
| | | | .24) | |

9.2.2.31 Power Resume Mode (PRM)

Void.

9.2.2.31A Preamble Signatures

Void.

9.2.2.32 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|---------------------------------|
| Primary CPICH Ec/No | | | INTEGER(- | Unit dB, step 1 dB |
| | | | 30+30) | The value range is typically |
| | | | | within the range of -24 dB to 0 |
| | | | | dB according to the CPICH |
| | | | | Ec/lo UE measurement |
| | | | | defined in ref. [23]. |

9.2.2.32A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Primary CPICH Usage For | | | ENUMERATED | |
| Channel Estimation | | | (Primary CPICH | |
| | | | may be used, | |
| | | | Primary CPICH | |
| | | | shall not be | |
| | | | used) | |

9.2.2.33 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------------|
| Propagation Delay | | | | Unit: Chips. Step: 3 chips. |
| | | | INTEGER(0. | 0=0 chips, |
| | | | .255) | 1=3 chips |

9.2.2.33A PRACH Minimum Spreading Factor

Void.

9.2.2.34 QE-Selector

Void.

9.2.2.34a Qth Parameter

This parameter indicates the Quality threshold for reliable detection of primary cell ID in SSDT [10].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|-----------------------|-----------------------|
| Qth Parameter | | | INTEGER (- 200) | Unit dB Step 1 dB |

9.2.2.34A RACH Sub Channel Numbers

Void.

9.2.2.35 RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RL Set ID | | | INTEGER | |
| | | | (031) | |

9.2.2.35A Received Total Wide Band Power

The parameter indicates the Received total wide band power in a cell, see ref. [11].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-------------------------------|
| Received Total Wide | | | INTEGER(0. | According to mapping in [23]. |
| Band Power | | | .621) | |

9.2.2.36 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SSDT Cell ID to the network.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| S Field Length | | | ENUMERAT | |
| - | | | ED(1, 2,) | |

9.2.2.37 Scrambling Code Change

Void.

9.2.2.37A Scrambling Code Number

Void.

9.2.2.37B Secondary CCPCH Info

The *Secondary CCPCH Info* IE provides information on scheduling of broadcast information for DRAC on a Secondary CCPCH in one cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|-------------------|--|-----------------------------|---|-------------|-------------------------|
| FDD S-CCPCH Offset | М | | 9.2.2.15 | Corresponds | _ | |
| | | | | to: $\tau_{\text{S-CCPCH,k}}$, see ref. [8] | | |
| DL Scrambling Code | M | | 9.2.2.11 | | _ | |
| FDD DL Channelisation Code Number | М | | 9.2.2.14 | | _ | |
| TFCS | M | | 9.2.1.63 | For the DL. | _ | |
| Secondary CCPCH Slot Format | М | | 9.2.2.38 | | _ | |
| TFCI Presence | C - SlotFormat | | 9.2.1.55 | | _ | |
| Multiplexing Position | М | | 9.2.2.26 | | _ | |
| STTD Indicator | M | | 9.2.2.44 | | _ | |
| FACH/PCH Information | | 1 <maxfac Hcount+1></maxfac | | | _ | |
| >TFS | | | 9.2.1.64 | For each FACH, and the PCH when multiplexed on the same Secondary CCPCH | _ | |
| IB Scheduling Information | | 1 | | | _ | |
| >IB_SG_REP | M | | 9.2.2.21 | | _ | |
| >IB Segment Information | | 1 <maxibse G></maxibse | | | _ | |
| >>IB_SG_POS | М | | 9.2.2.20 | | _ | |

| Condition | Explanation | | | |
|------------|--|--|--|--|
| SlotFormat | The IE shall be present if the Secondary CCPCH Slot Format IE is | | | |
| | egual to any of the values from 8 to 17. | | | |

| Range bound | Explanation |
|--------------|--|
| maxFACHCount | Maximum number of FACHs mapped onto a Secondary CCPCH. |
| maxIBSEG | Maximum number of segments for one Information Block. |

9.2.2.38 Secondary CCPCH Slot Format

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|-----------------------|
| Secondary CCPCH Slot Format | | | INTEGER(017,) | See ref. [8]. |

9.2.2.38A Secondary CPICH Information

The Secondary CPICH Information IE provides the information on the Secondary CPICH when it can be used for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------------------|----------|-------|-----------------------|-----------------------|
| DL Scrambling Code | | | 9.2.2.11 | |
| FDD DL Channelisation Code Number | | | 9.2.2.14 | |

9.2.2.38B Secondary CPICH Information Change

The Secondary CPICH Information Change IE indicates modification of information of the Secondary CPICH for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|-----------------------|-----------------------|
| CHOICE Secondary CPICH Information Change | | | | |
| >New Secondary CPICH | | | | |
| >>Secondary CPICH Information | М | | 9.2.2.38A | |
| >Secondary CPICH Shall | | | NULL | |
| Not Be Used | | | | |

9.2.2.39 Slot Number (SN)

Void

9.2.2.39a Split Type

This parameter indicates if the "Hard" or "Logical" is used for the TFCI.split mode.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|----------------------------------|---|
| Split Type | | | ENUMERAT ED(Hard, Logical) | "Hard": meaning that TFCI (field 1) and TFCI (field 2) are each 5 bits long and each field is block coded separately. "Logical": meaning that on the physical layer TFCI (field 1) and TFCI (field 2) are concatenated, field 1 taking the most significant bits and field 2 taking the least significant bits). The whole is then encoded with a single block code. |

9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| SRB Delay | | | INTEGER(0. | In number of frames. |
| | | | .7,) | |

9.2.2.40 SSDT Cell Identity

The SSDT Cell Identity is a temporary ID for SSDT assigned to a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|-----------------------|
| SSDT Cell Identity | | | ENUMERAT | |
| _ | | | ED(ah) | |

9.2.2.40A SSDT Cell Identity for EDSCHPC

The SSDT Cell Identity for EDSCHPC is a temporary ID for enhanced DSCH power control assigned to a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| SSDT Cell Identity for | | | SSDT Cell | |
| EDSCHPC | | | Identity | |
| | | | 9.2.2.40 | |

9.2.2.41 SSDT Cell Identity Length

The SSDT Cell Identity Length parameter shows the length of the SSDT Cell ID.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| SSDT Cell Identity Length | | | ENUMERAT | |
| | | | ED(Short, | |
| | | | Medium, | |
| | | | Long) | |

9.2.2.42 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|---|-----------------------|
| SSDT Indication | | | ENUMERAT ED(SSDT Active in the UE, SSDT not Active in the UE) | |

9.2.2.43 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| SSDT Support Indicator | | | ENUMERAT | |
| | | | ED(SSDT | |
| | | | Supported, | |
| | | | SSDT not | |
| | | | supported). | |

9.2.2.44 STTD Indicator

Indicates if STTD is active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-------------------------------------|-----------------------|
| STTD Indicator | | | ENUMERAT ED(active, inactive) | |

9.2.2.45 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH in the cell or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| STTD Support Indicator | | | ENUMERAT | |
| | | | ED(STTD | |
| | | | Supported, | |
| | | | STTD not | |
| | | | Supported). | |

9.2.2.46 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|------------------------|-----------------------|
| TFCI Signalling Mode | | | ENUMERAT ED(Normal. | |
| | | | Split) | |

9.2.2.46A TFCI PC Support Indicator

The TFCI PC Support Indicator indicates whether the TFCI power control in the DSCH hard split mode can be applied to DL DPCH in the cell or not. TFCI PC Mode 1 means that the only one power offset(TFCI PO[4]) is applied in TFCI power control. TFCI PC Mode 2 means that the cell also supports enhanced DSCH power control and two power offset(TFCI PO and TFCI PO_primary[4]) are applied in TFCI power control.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| TFCI PC Support Indicator | | | ENUMERAT | |
| | | | ED(TFCI PC | |
| | | | Mode 1 | |
| | | | Supported, | |
| | | | TFCI PC | |
| | | | Mode 2 | |
| | | | Supported) | |

9.2.2.47 Transmission Gap Distance (TGD)

Void.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-----------------------|--|---|
| Transmission Gap Pattern Sequence Information | | 1 <maxtgps></maxtgps> | | |
| >TGPSI Identifier | М | | INTEGER(1. . <maxtgps >)</maxtgps | Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps> |
| >TGSN | М | | INTEGER(014) | Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN. |
| >TGL1 | M | | INTEGER(114) | The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots. |
| >TGL2 | 0 | | INTEGER(1. .14) | The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. |
| >TGD | M | | INTEGER (0, 15 269) | Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 = undefined). |
| >TGPL1 | М | | INTEGER(1144,) | The duration of transmission gap pattern 1 in frames. |
| >TGPL2 | 0 | | INTEGER(1144,) | The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1. |
| >UL/DL mode | M | | ENUMERAT ED(UL only, DL only, UL/DL) | Defines whether only DL, only UL, or combined UL/DL compressed mode is used. |
| >Downlink Compressed Mode Method | C-DL | | ENUMERAT ED(puncturin g, SF/2, higher layer scheduling,) | Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped. |
| >Uplink Compressed Mode Method | C-UL | | ENUMERAT ED(SF/2, higher layer scheduling,) | Method for generating uplink compressed mode gap. |
| >Downlink Frame Type | М | | ENUMERAT ED(A, B,) | Defines if frame type 'A' or 'B' shall be used in downlink compressed mode. |
| >DeltaSIR1 | М | | INTEGER(030) | Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) Step 0.1 dB, Range 0-3dB |
| >DeltaSIRafter1 | M | | INTEGER (030) | Delta in SIR target value to be set in the DRNS one frame after |

| | | | the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB |
|-----------------|---|------------------|--|
| >DeltaSIR2 | 0 | INTEGER (030) | Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB |
| >DeltaSIRafter2 | 0 | INTEGER (030) | Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB |

| Condition | Explanation | | |
|-----------|---|--|--|
| UL | The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL". | | |
| DL | The IE shall be present if the <i>UL/DL mode</i> IE is set to "DL only" or "UL/DL". | | |

| Range bound | Explanation | | |
|-------------|---|--|--|
| maxTGPS | Maximum number of transmission gap pattern sequences. | | |

9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information

This IE indicates whether or not the alternative scrambling code will be used in the DRNS for the Downlink compressed mode method 'SF/2' in the Transmission Gap Pattern Sequence. For details see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|--|---|
| Transmission Gap Pattern Sequence Scrambling Code Information | | | ENUMERAT ED(code change, no code change) | Code change = alternative scrambling code will be used. |

9.2.2.48 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether Transmit Diversity shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|-----------------------|-----------------------|
| Transmit Diversity Indicator | | | ENUMERAT | |
| | | | ED(active, | |
| | | | inactive) | |

9.2.2.49 Transmit Gap Length (TGL)

Void

9.2.2.50 Tx Diversity Indicator

The Tx Diversity Indicator indicates if the following conditions are satisfied:

- Primary CPICH is broadcast from two antennas
- STTD is applied to Primary CCPCH
- TSTD is applied to Primary SCH and Secondary SCH

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| Tx Diversity Indicator | | | ENUMERAT | |
| | | | ED(true, | |
| | | | false). | |

9.2.2.50A UE Support Of Dedicated Pilots For Channel Estimation

The *UE Support Of Dedicated Pilots For Channel Estimation* IE indicates whether the UE supports dedicated pilots for channel estimation or not for DCH or DSCH.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| UE Support Of Dedicated | | | ENUMERATED | |
| Pilots For Channel | | | (Dedicated | |
| Estimation | | | pilots for | |
| | | | channel | |
| | | | estimation | |
| | | | supported) | |

9.2.2.50B UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

The *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE indicates whether the UE supports dedicated pilots for channel estimation or not for HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| UE Support Of Dedicated | | | ENUMERATED | |
| Pilots For Channel | | | (Dedicated | |
| Estimation Of HS-DSCH | | | pilots for | |
| | | | channel | |
| | | | estimation | |
| | | | supported) | |

9.2.2.51 UL/DL Compressed Mode Selection

Void

9.2.2.52 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| UL DPCCH Slot Format | | | INTEGER (05,) | |

9.2.2.53 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|-----------------------------------|-----------------------|
| UL Scrambling Code Number | M | | INTEGER (0 2 ²⁴ -1) | |
| UL Scrambling Code Length | M | | ENUMERAT ED(Short, Long) | |

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9.2.2.54 Uplink Delta SIR

Void

9.2.2.55 Uplink Delta SIR After

Void

9.2.2.56 DPC Mode Change Support Indicator

The DPC Mode Change Support Indicator IE indicates that the particular cell is capable to support DPC mode change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|---------------------------|-----------------------|
| DPC Mode Change Support Indicator | | | ENUMERATTE D (DPC Mode | |
| | | | Change Supported) | |

9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

9.2.3.a Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

| Presence | Range | IE Type and Reference | Semantics Description |
|----------|----------|---|-------------------------------|
| | | ENUMERAT ED(0, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8 | |
| | Presence | Presence Range | Reference ENUMERAT ED(0, 1/8, |

9.2.3.A Block STTD Indicator

Void.

9.2.3.1 Burst Type

Void.

9.2.3.1a Cell Capability Container TDD

The Cell Capability Container TDD indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------------|----------|-------|---------------------------|--|
| Cell Capability Container TDD | | | Reference BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|-----------------------|--|
| Cell Capability Container TDD LCR | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall |
| | | | | be ignored by the receiver. |

9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| CCTrCH ID | | | INTEGER | |
| | | | (015) | |

9.2.3.2A DCH TDD Information

The $DCH\ TDD\ Information$ IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|---------------|--|-----------------------------|---|-------------|-------------------------|
| DCH Information | | 1 <maxno< td=""><td></td><td></td><td>-</td><td></td></maxno<> | | | - | |
| | | ofDCHs> | | | | |
| >Payload CRC Presence | M | | 9.2.1.42 | | _ | |
| Indicator | | | | | | |
| >UL FP Mode | M | | 9.2.1.67 | | _ | |
| >ToAWS | M | | 9.2.1.58 | | _ | |
| >ToAWE | M | | 9.2.1.57 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | М | | 9.2.1.16 | | _ | |
| >>CCTrCH ID | M | | 9.2.3.2 | UL CCTrCH in which the DCH is mapped | - | |
| >>CCTrCH ID | М | | 9.2.3.2 | DL CCTrCH in which the DCH is mapped | _ | |
| >>TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | - | |
| >>Transport Format Set | M | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | M | | 9.2.1.64 | For the DL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the UL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the DL. | _ | |
| >>Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | М | | 9.2.1.29 | | _ | |
| >>QE-Selector | C- CoorDCH | | 9.2.1.46A | | _ | |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | 0 | | 9.2.1.68B | | YES | ignore |

| Condition | Explanation |
|-----------|--|
| CoorDCH | The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the DCH Specific Info IE is greater |
| | than 1). |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.3.2B DCH TDD Information Response

Void

9.2.3.2C DL Timeslot Information

The *DL Timeslot Information* IE provides information on the time slot allocation for a DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|---------------------------------|---|--------------------------|-------------|-------------------------|
| DL Timeslot Information | | 1 <maxno OfTS></maxno | | | _ | |
| >Time Slot | M | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | _ | |
| >TFCI Presence | M | | 9.2.1.55 | | _ | |
| >DL Code Information | М | | TDD DL Code Information 9.2.3.8C | | - | |

| Range bound | Explanation |
|-------------|---------------------------------------|
| maxnoofTSs | Maximum number of Timeslots for a UE. |

9.2.3.2D DL Time Slot ISCP Info

The DL Time Slot ISCP Info IE gives interference level for each DL time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| DL Time Slot ISCP Info | | 1 <maxno ofDLts></maxno | | | _ | |
| >Time Slot | М | | 9.2.1.56 | | _ | |
| >DL Timeslot ISCP | М | | 9.2.3.12 | | _ | |

| Range bound | Explanation |
|-------------|--|
| maxnoofDLts | Maximum number of downlink time slots per Radio Link for |
| | 3.84Mcps TDD. |

9.2.3.2E DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Timeslot to be established for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and | Semantics | Criticality | Assigned Criticality |
|-----------------------------|----------|---|--|--|-------------|----------------------|
| | | | Reference | Description | | Criticality |
| DL Timeslot Information LCR | | 1 <maxnoof DLtsLCR></maxnoof | | | I | |
| >Time Slot LCR | M | | 9.2.3.12a | | - | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | - | |
| >TFCI Presence | M | | 9.2.1.57 | | 1 | |
| >DL Code Information LCR | М | | TDD DL Code Information LCR 9.2.3.8D | | 1 | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |

| Range bound | Explanation |
|----------------|--|
| maxnoofDLtSLCR | Maximum number of Downlink time slots per Radio Link for |
| | 1.28Mcps TDD. |

9.2.3.2F DL Time Slot ISCP Info LCR

The DL *Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| DL Time Slot ISCP Info LCR | | 1 <maxnooful tsLCR></maxnooful | | | _ | |
| >Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >DL Timeslot ISCP | М | | 9.2.3.12 | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofULtsLCR | Maximum number of Uplink time slots per Radio Link for 1.28Mcps |
| | TDD |

9.2.3.3 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| DPCH ID | | | INTEGER (0239) | |

9.2.3.3a DSCH TDD Information

The DSCH TDD Information IE provides information for DSCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|------------------------------------|-----------------------------|---|-------------|-------------------------|
| DSCH TDD Information | | 1 <maxno ofDSCHs></maxno | | | _ | |
| >DSCH ID | M | | 9.2.1.26A | | _ | |
| >CCTrCH ID | M | | 9.2.3.2 | DL CCTrCH in which the DSCH is mapped. | _ | |
| >TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >Transport Format Set | M | | 9.2.1.64 | | _ | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >BLER | M | | 9.2.1.4 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |

| Range bound | Explanation | | | |
|--------------|-------------------------------------|--|--|--|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. | | | |

9.2.3.3aa HS-DSCH TDD Information

The HS-DSCH TDD Information IE provides information for HS-DSCH to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|--|---|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information | | 1 <maxno ofMACdFl ows></maxno | | | - | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.300 | | _ | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| Priority Queue Information | | 1 <maxno ofPrioQue ues></maxno | | | - | |
| >Priority Queue ID | М | 0.001 | 9.2.1.45A | | _ | |
| >Associated HS-DSCH MAC- d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | - | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | | |
| >T1 | M | | 9.2.1.54A | | | |
| >Discard Timer | 0 | | 9.2.1.19C | | | |
| >MAC-hs Window Size | M | | 9.2.1.34C | | _ | |
| >MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | | |
| >MAC-d PDU Size Index | | 1 <maxno ofMACdP DUindexes ></maxno | | | | |
| >>SID | М | | 9.2.1.52D | | - | |
| >>MAC-d PDU Size | М | | 9.2.1.34A | | - | |
| UE Capabilities information | | 1 | | | - | |
| >HS-DSCH Physical Layer Category | М | | 9.2.1.30Oa | | _ | |
| >MAC-hs reordering buffer size | М | | 9.2.1.34Ab | | | |
| TDD ACK NACK Power Offset | M | | 9.2.3.71 | | _ | |

| Range bound | Explanation |
|-----------------------|--|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofPrioQueues | Maximum number of Priority Queues. |
| maxnoofMACdPDUindexes | Maximum number of MAC-d PDU Size Indexes |
| | (SIDs). |

9.2.3.3ab HS-DSCH TDD Information Response

The *HS-DSCH TDD Information Response* IE provides information for HS-DSCH that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|---|--|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information Response | | 1 <maxno ofMACdFl ows></maxno | | | - | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >HS-DSCH Initial Capacity Allocation | 0 | | 9.2.1.30Na | | _ | |
| HS-SCCH Specific Information Response | | 0 <maxno ofHSSCC Hcodes></maxno | | Mandatory for 3.84 Mcps TDD, not applicable to 1.28 Mcps TDD | T. | |
| >Time Slot | М | | 9.2.1.56 | | | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | | |
| >TDD Channelisation Code >HS-SICH Information | M | 1 | 9.2.3.8 | | | |
| >>HS SICH ID | М | | 9.2.3.3ad | | | |
| >>Time Slot | M | | 9.2.1.56 | | | |
| >>Midamble Shift And Burst Type | М | | 9.2.3.4 | | | |
| >>TDD Channelisation Code | М | | 9.2.3.8 | | | |
| HS-SCCH Specific Information Response LCR | | 0 <maxno ofHSSCC Hcodes></maxno | | Mandatory for 1.28 Mcps TDD, not applicable to 3.84 Mcps TDD | - | |
| >Time Slot LCR | M | | 9.2.3.12a | | | |
| >Midamble shift LCR | M | | 9.2.3.4C | | | |
| >First TDD Channelisation Code | M | | TDD Channelisa tion Code 9.2.3.8 | | | |
| >Second TDD Channelisation Code | M | | TDD Channelisa tion Code 9.2.3.8 | | | |
| >HS-SICH Information LCR | | 1 | | | | |
| >>HS SICH ID | M | | 9.2.3.3ad | | | |
| >>Time Slot LCR | M | | 9.2.3.12a | | | |
| >>Midamble shift LCR >>TDD Channelisation Code | M | | 9.2.3.4C 9.2.3.8 | | | |
| HS-PDSCH Timeslot Specific Information Response | | 0 <maxno ofDLts></maxno | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | - | |
| >Time Slot | М | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | - | |
| HS-PDSCH Timeslot Specific Information Response LCR | | 0 <maxno ofDLtsLCR ></maxno | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | - | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| >Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >Midamble Shift LCR | М | | 9.2.3.4C | | _ | |
| CHOICE HARQ Memory Partitioning | М | | | | _ | |
| >Implicit | | | | | _ | |
| >>Number of Processes | М | | INTEGER (18) | | _ | |
| >Explicit | | | | | _ | |
| >>HARQ Memory Partitioning Information | | 1 <maxno ofHARQpr ocesses></maxno | | | _ | |
| >>>Process Memory Size | М | | 9.2.1.45B | See [16] | _ | |

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| Range bound | Explanation |
|----------------------|---|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofHSSCCHcodes | Maximum number of HS-SCCH codes. |
| maxnoofDLts | Maximum number of downlink time slots per Radio |
| | Link for 3.84Mcps TDD. |
| maxnoofDLtsLCR | Maximum number of Downlink time slots per Radio |
| | Link for 1.28Mcps TDD. |
| maxnoofHARQprocesses | Maximum number of HARQ processes. |

9.2.3.3ac **HS-DSCH TDD Update Information**

The HS-DSCH TDD Update Information IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|-------------------------------|----------|-------|-----------------------------|-------------------------|-------------|-------------------------|
| HS-SCCH Code Change Indicator | 0 | | 9.2.1.30R | | _ | |
| TDD ACK NACK Power Offset | 0 | | 9.2.3.71 | | _ | |

9.2.3.3ad HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| HS SICH ID | | | INTEGER (031) | |

9.2.3.3A Maximum Number of Timeslots

Defines the maximum number of timeslots the UE has the capability of receiving or transmitting. [3.84Mcps TDD – in a frame] [1.28Mcps TDD – in a subframe]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-------------------------------|
| Maximum Number of | | | INTEGER | For 1.28Mcps TDD the values 7 |
| Timeslots | | | (114) | through 14 are not used. |

9.2.3.3B Maximum Number of UL Physical Channels per Timeslot

Defines the maximum number of physical channels [3.84Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to transmit.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Maximum Number of UL | | | INTEGER | |
| Physical Channels per | | | (12) | |
| Timeslot | | | | |

9.2.3.3C Maximum Number of DL Physical Channels

Defines the maximum number of physical channels [3.84 Mcps TDD - per frame] [1.28 Mcps TDD - per subframe] that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|--------------------------|--|
| Maximum Number of DL Physical Channels | | | INTEGER (1224) | For 1.28Mcps TDD the values 97 through 224 are not used. |

9.2.3.3D Maximum Number of DL Physical Channels per Timeslot

Defines the maximum number of physical channels per timeslot that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|--------------------------|-----------------------|
| Maximum Number of DL | | | INTEGER | |
| Physical Channels per | | | (116) | |
| Timeslot | | | | |

9.2.3.4 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|-------------|-------|--|--------------------------|
| CHOICE Burst Type | | | | |
| >Type 1 | | | | |
| >> Midamble Configuration Burst Type 1 And 3 | M | | ENUMERATED(4, 8, 16) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Defa ult midamble, Common midamble, UE specific midamble) | |
| >>Midamble Shift Long | C-UE | | INTEGER(015) | |
| >Type 2 | | | | |
| >> Midamble Configuration Burst Type 2 | M | | ENUMERATED (3, 6) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Defa ult midamble, Common midamble, UE specific midamble) | |
| >>Midamble Shift Short | <u>C-UE</u> | | INTEGER (015) | |
| >Type 3 | | | | UL only |
| >> Midamble Configuration Burst Type 1 And 3 | M | | ENUMERATED (4, 8, 16) | As defined in [12] |
| >>Midamble Allocation Mode | M | | ENUMERATED(Defa ult midamble, UE specific midamble) | |
| >>Midamble Shift Long | C-UE | | INTEGER(015) | |

| Condition | Explanation |
|-----------|--|
| UE | The IE shall be present if the Midamble Allocation |
| | Mode IE is set to "UE-specific midamble". |

9.2.3.4A Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|--------------------------|-----------------------|
| Minimum Spreading | | | INTEGER | |
| Factor | | | (116) | |

9.2.3.4B IPDL TDD parameters

The IPDL TDD Parameters IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|--|-----------------------|
| IP Spacing TDD | M | | ENUMERAT ED(30,40,50 , 70, 100,) | See [22] |
| IP Start | M | | INTEGER(0. .4095) | See [22] |
| IP Slot | М | | INTEGER(014) | See [22] |
| IP P-CCPCH | М | | ENUMERAT ED(Switch off 1 frame, Switch off 2 frames) | See [22] |
| Burst mode parameters | 0 | | 9.2.1.4B | |

9.2.3.4Bb IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|--|-----------------------|
| IP Spacing TDD | M | | ENUMERAT ED(30,40,50 , 70, 100,) | See [22] |
| IP Start | M | | INTEGER(04095) | See [22] |
| IP_Sub | М | | ENUMERAT ED(First,Sec ond,Both) | See [22] |
| Burst mode parameters | 0 | | 9.2.1.4B | |

9.2.3.4C Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|-----------------------|-----------------------|
| Midamble Allocation Mode | M | | ENUMERAT | |
| | | | ED(Default | |
| | | | midamble, | |
| | | | Common | |
| | | | midamble, | |
| | | | UE specific | |
| | | | midamble,) | |
| Midamble Shift Long | C-UE | | INTEGER(0. | |
| | | | .15) | |
| Midamble Configuration LCR | M | | ENUMERAT | As defined in [12] |
| | | | ED (2, 4, 6, | _ - |
| | | | 8, 10, 12, 14, | |
| | | | 16,) | |

| Condition | Explanation |
|-----------|--|
| UE | The IE shall be present if the Midamble Allocation |
| | Mode IE is set to "UE-specific midamble". |

9.2.3.4D Neighbouring TDD Cell Information LCR

Void

9.2.3.5 Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|--|
| Primary CCPCH RSCP | | | INTEGER(091) | According to mapping in in ref. [244]. |

9.2.3.5A PRACH Midamble

Void.

9.2.3.5B RB Identity

The RB Identity is the identifier of a radio bearer. It is unique for each active Radio bearer among the active radio bearers simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------|
| RB Identity | | | INTEGER | In line with [16], ch. |
| | | | (031) | 10.3.4.11 |

9.2.3.6 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|--------------------------|-----------------------|
| Repetition Length | | | INTEGER(163 | |

9.2.3.7 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J, it is assigned to the same physical channel also in all the Radio Frames J+n*Repetition Period (where n is an integer) see ref. [16].

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------|----------|-------|------------------------|-----------------------|
| | | | Refe rence | |
| Repetition Period | | | ENUMERATED | |
| | | | (1,2,4,8,16,32,6 4) | |

9.2.3.7A **Rx Timing Deviation**

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. For 1.28Mcps TDD this IE must be set to 0.

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|----------------------------------|
| Rx Timing Deviation | | | INTEGER (0127) | As specified in [5], ch. 6.2.7.6 |

Secondary CCPCH Info TDD 9.2.3.7B

The Secondary CCPCH Info TDD IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|----------------|--------------------------|-------------|-------------------------|
| | | | Reference | | | |
| TFCS | M | | 9.2.1.63 | For the DL. | _ | |
| TFCI Coding | M | | 9.2.3.11 | | _ | |
| Secondary CCPCH | | 0 <maxno ofSCCPC Hs></maxno | | | _ | |
| >Time Slot | M | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | М | | 9.2.3.4 | | _ | |
| >TFCI Presence | M | | 9.2.1.55 | | _ | |
| > Secondary CCPCH TDD Code Information | М | | 9.2.3.7C | | _ | |
| >TDD Physical Channel Offset | М | | 9.2.3.9 | | | |
| >Repetition Length | M | | 9.2.3.6 | | _ | |
| >Repetition Period | M | | 9.2.3.7 | | _ | |
| FACH | | 0maxnoo fFACHs | | | _ | |
| > TFS | M | | 9.2.1.64 | For the DL. | _ | |
| PCH | | 01 | | | _ | |
| > TFS | М | | 9.2.1.64 | For the DL. | _ | |

| Range bound | Explanation |
|----------------|--|
| maxnoofSCCPCHs | Maximum number of Secondary CCPCHs per CCTrCH. |
| maxnoofFACHs | Maximum number of FACHs mapped onto a Secondary CCPCH. |

9.2.3.7C Secondary CCPCH TDD Code Information

The Secondary CCPCH TDD Code Information IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| Secondary CCPCH TDD Code Information | | 1 <maxno OfSCCPC Hs></maxno | | | _ | |
| >TDD Channelisation Code | М | | 9.2.3.8 | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofSCCPCHs | Maximum number of SCCPCHs for one CCTrCH. |

9.2.3.7D Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|--|
| Special Burst Scheduling | | | INTEGER(1, 2,, 256) | Number of frames between special burst transmissions |
| | | | | during DTX |

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9.2.3.7E Synchronisation Configuration

The Synchronisation Configuration parameters that are used by the DRNS in the Radio Link Failure/Restore procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|---------------------------------------|-----------------------|
| N_INSYNC_IND | М | | INTEGER(1, 2,, 256) | |
| N_OUTSYNC_IND | М | | INTEGER(1, 2,, 256) | |
| T_RLFAILURE | M | | ENUMERAT ED(0, 0.1, 0.2,, 25.5) | Unit: seconds |

9.2.3.7F Secondary CCPCH Info TDD LCR

The *Secondary CCPCH Info TDD LCR* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TFCS | М | | 9.2.1.63 | For the DL. | _ | |
| TFCI Coding | М | | 9.2.3.11 | | _ | |
| Secondary CCPCH | | 0 <maxno ofSCCPC Hs></maxno | | | - | |
| >Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | _ | |
| >TFCI Presence | М | | 9.2.1.55 | | _ | |
| > Secondary CCPCH TDD Code Information LCR | М | | 9.2.3.7G | | _ | |
| >TDD Physical Channel Offset | М | | 9.2.3.9 | | | |
| >Repetition Length | M | | 9.2.3.6 | | _ | |
| >Repetition Period | M | | 9.2.3.7 | | _ | |
| FACH | | 0 <maxno ofFACHs></maxno | | | _ | |
| > TFS | М | | 9.2.1.64 | For the DL. | _ | |
| PCH | | 01 | | | _ | |
| > TFS | M | | 9.2.1.64 | For the DL. | _ | |

| Range bound | Explanation |
|----------------|--|
| maxnoofSCCPCHs | Maximum number of Secondary CCPCHs per CCTrCH. |
| maxnoofFACHs | Maximum number of FACHs mapped onto a Secondary CCPCH. |

9.2.3.7G Secondary CCPCH TDD Code Information LCR

The *Secondary CCPCH TDD Code Information LCR* IE provides LCR TDD Channelisation Code information for all SCCPCHs of one Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|--|--------------------------|-------------|-------------------------|
| Secondary CCPCH TDD Code Information | | 1 <maxno OfSCCPC Hs></maxno | | | I | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | | ı | |
| >SCCPCH Time Slot Format LCR | М | | TDD DL DPCH Time Slot Format LCR 9.2.3.8E | | - | |

| Range bound | Explanation |
|----------------|---|
| maxnoofSCCPCHs | Maximum number of SCCPCHs for one CCTrCH. |

9.2.3.7H Support of 8PSK

The Support of 8PSK IE indicates whether 8PSK is supported or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|-----------------------|-----------------------|
| Support of 8PSK | | | ENUMERAT | |
| | | | ED(supported | |
| | | |) | |

9.2.3.7I TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [16].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--------------------|----------|-------|-----------------------|-----------------------|
| TDD ACK NACK Power | | | INTEGER (- | Unit: dB |
| Offset | | | 78,) | Range: -7+8 dB |
| | | | · | Step: 1 dB |

9.2.3.8 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8 or 16.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--|-----------------------|
| TDD Channelisation Code | | | ENUMERATED ((1/1), (2/1), (2/2), (4/1), (4/4), (8/1), (8/8), (16/1), (16/16),) | |

9.2.3.8a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------------|
| TDD Channelisation Code | M | | ENUMERAT | |
| | | | ED((1/1), | |
| | | | (2/1), (2/2), | |
| | | | (4/1),(4/4), | |
| | | | (8/1), (8/8), | |
| | | | (16/1) | |
| | | | (16/16) ,) | |
| Modulation | M | | ENUMERAT | Modulation options for |
| | | | ED(QPSK, | 1.28Mcps TDD in contrast to |
| | | | 8PSK,) | 3.84Mcps TDD |

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TDD DPCH Offset 9.2.3.8A

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The first range is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The second range is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offset for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset mod Repetition period, see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| | | | | |
| CHOICE Offset Type | | | | |
| >Initial Offset | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER | |
| | | | (0255) | |
| >No Initial Offset | | | | |
| >>TDD DPCH Offset Value | М | | INTEGER (063) | |

9.2.3.8B TDD DCHs To Modify

The TDD DCHs To Modify IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-----------------------------------|-----------------------------|--|-------------|-------------------------|
| TDD DCHs To Modify | | 1 <maxno ofDCHs></maxno | | | _ | |
| >UL FP Mode | 0 | | 9.2.1.67 | | _ | |
| >ToAWS | 0 | | 9.2.1.58 | | _ | |
| >ToAWE | 0 | | 9.2.1.57 | | _ | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | M | | 9.2.1.16 | | _ | |
| >>CCTrCH ID | 0 | | 9.2.3.2 | UL CCTrCH in which the DCH is mapped. | _ | |
| >>CCTrCH ID | 0 | | 9.2.3.2 | DL CCTrCH in which the DCH is mapped | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the DL. | _ | |
| >>Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | 0 | | 9.2.1.29 | | _ | |
| >>Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.3.8C TDD DL Code Information

The TDD DL Code Information IE provides TDD DL Code information for all DPCHs of one DL Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TDD DL Code Information | | 1 <maxno OfDPCHs ></maxno | | | _ | |
| >DPCH ID | M | | 9.2.3.3 | | _ | |
| >TDD Channelisation Code | М | | 9.2.3.8 | | _ | |

| Range bound | Explanation |
|--------------|---|
| maxnoofDPCHs | Maximum number of DPCHs for one CCTrCH. |

9.2.3.8D TDD DL Code Information LCR

The TDD DL Code Information LCR IE provides DL Code information for the RL for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TDD DL Code Information | | 1 | | | _ | |
| LCR | | <maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<> | | | | |
| | | DPCHLCR | | | | |
| | | > | | | | |
| >DPCH ID | M | | 9.2.3.5 | | _ | |
| >TDD Channelisation | M | | 9.2.3.8a | | _ | |
| Code LCR | | | | | | |
| > TDD DL DPCH Time Slot | M | | 9.2.3.8E | | _ | |
| Format LCR | | | | | | |

| Range bound | Explanation |
|----------------|---|
| maxnoOfDPCHLCR | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD |

9.2.3.8E TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [12]).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|----------|-------|-----------------------|-----------------------|
| CHOICE Modulation | | | | |
| > QPSK | | | | |
| >>QPSK TDD DL DPCH TimeSlot Format LCR | M | | INTEGER (024,) | |
| > 8PSK | | | | |
| >>8PSK TDD DL DPCH TimeSlot Format LCR | M | | INTEGER (024,) | |

9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a non DPCH physical channel. (CFN mod Repetition Period = TDD Physical Channel Offset) see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|-----------------------|
| TDD Physical Channel | | | INTEGER | |
| Offset | | | (063) | |

9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment (see ref [22]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|-----------------------|
| TDD TPC Downlink Step Size | | | ENUMERAT | Unit: dB |
| Size | | | ED(1, 2, 3,) | |

9.2.3.10a TDD TPC Uplink Step Size

This parameter indicates step size for the UL power adjustment (see ref [22]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| TDD TPC Uplink Step Size | | | ENUMERAT | Unit: dB |
| | | | ED | |
| | | | (1, 2, 3,) | |

9.2.3.10A TDD UL Code Information

The TDD UL Code Information IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TDD UL Code Information | | 1 <maxno OfDPCHs ></maxno | | | _ | |
| >DPCH ID | M | | 9.2.3.3 | | _ | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | _ | |

| Range bound | Explanation |
|--------------|---|
| maxnoofDPCHs | Maximum number of DPCHs for one CCTrCH. |

9.2.3.10B TDD UL Code Information LCR

The TDD UL Code Information LCR IE provides information for UL Code to be established for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|--|-----------------------------|--------------------------|-------------|-------------------------|
| TDD UL Code Information LCR | | 1 <maxno OfDPCH LCR></maxno | | | _ | |
| >DPCH ID | М | | 9.2.3.5 | | _ | |
| >TDD Channelisation Code LCR | М | | 9.2.3.8a | | - | |
| > TDD UL DPCH Time Slot Format LCR | М | | 9.2.3.10C | | _ | |

| Range bound | Explanation |
|----------------|--|
| maxnoOfDPCHLCR | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD. |

9.2.3.10C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [12]).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|----------------------|----------|-------|-----------------------|-----------------------|
| CHOICE Modulation | | | | |
| > QPSK | | | | |
| >>QPSK TDD UL DPCH | M | | INTEGER | |
| Time Slot Format LCR | | | (069,) | |
| > 8PSK | | | | |
| >>8PSK TDD UL DPCH | M | | INTEGER | |
| Time Slot Format LCR | | | (024,) | |

9.2.3.11 TFCI Coding

The TFCI Coding describes how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| TFCI Coding | | | ENUMERATE | |
| | | | D(4, 8, 16, | |
| | | | 32,) | ļ |

9.2.3.12 DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|--------------------------|-------------------------------|
| DL Timeslot ISCP | | | INTEGER(091) | According to mapping in [24]. |

9.2.3.12a Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Time Slot LCR | | | INTEGER | |
| | | | (06) | |

9.2.3.12A Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| Timing Advance Applied | | | ENUMERAT | |
| | | | ED(Yes, No) | |

9.2.3.13 Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|-----------------------|
| Transport Format | | | ENUMERAT | |
| Management | | | ED(Cell | |
| | | | Based, UE | |
| | | | Based,) | |

9.2.3.13A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the DRNS, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|-------------------------------|
| UL Timeslot ISCP | | | INTEGER(| According to mapping in [24]. |
| | | | 0127) | |

9.2.3.13B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|---------------------------|-----------------------|
| UL PhysCH SF Variation | | | ENUMERAT ED(SF_Vari | |
| | | | ation_suppor ted. | |
| | | | SF_Variation _NOT_supp | |
| | | | orted) | |

9.2.3.13C UL Timeslot Information

The *UL Timeslot Information* IE provides information on the time slot allocation for a UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|----------|---------------------------------|--|--------------------------|-------------|-------------------------|
| UL Timeslot Information | | 1 <maxno OfTS></maxno | | | _ | |
| >Time Slot | М | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | _ | |
| >TFCI Presence | M | | 9.2.1.55 | | _ | |
| >UL Code Information | M | | TDD UL Code Information 9.2.3.10A | | _ | |

| Range bound | Explanation |
|-------------|---------------------------------------|
| maxnoofTSs | Maximum number of Timeslots for a UE. |

9.2.3.13D UL Time Slot ISCP Info

The $UL\ Time\ Slot\ ISCP\ Info\ IE\ gives\ interference\ level\ for\ each\ UL\ time\ slot\ within\ the\ Radio\ Link.$

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|------------------------|----------|---|----------------|--------------------------|-------------|-------------------------|
| | | | Reference | | | |
| UL Time Slot ISCP Info | | 1 | | | - | |
| | | <maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<> | | | | |
| | | ULts> | | | | |
| >Time Slot | М | | 9.2.1.56 | | _ | |
| >UL Timeslot ISCP | М | | 9.2.3.13A | | _ | |

| Range bound | Explanation |
|-------------|---|
| maxnoofULts | Maximum number of uplink time slots per Radio Link. |

9.2.3.13E TSTD Indicator

Indicates if TSTD shall be active or not for the DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| TSTD Indicator | | | ENUMERAT | |
| | | | ED(active, | |
| | | | inactive) | |

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9.2.3.13F TSTD Support Indicator

Indicates if UE support TSTD or not for DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|---|-----------------------|
| TSTD Support Indicator | | | ENUMERAT ED(TSTD supported, TSTD not supported) | |

9.2.3.13G UL Timeslot Information LCR

The UL Timeslot Information LCR IE provides information on the timeslot allocation for an UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------|----------|---|---|--------------------------|-------------|-------------------------|
| UL Timeslot Information LCR | | 1 <maxn oofULts LCR></maxn | | | - | |
| >Time Slot LCR | М | | 9.2.3.12a | | - | |
| >Midamble Shift LCR | М | | 9.2.3.4C | | - | |
| >TFCI Presence | М | | 9.2.1.57 | | - | |
| >UL Code Information LCR | М | | TDD UL Code Information LCR 9.2.3.10B | | | |

| Range bound | Explanation |
|----------------|---|
| maxnoofULtsLCR | Maximum number of Uplink time slots per Radio Link for 1.28Mcps |
| | TDD. |

9.2.3.13H UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| UL Time Slot ISCP Info | | 1 <maxnooful tsLCR></maxnooful | | | 1 | |
| >Time Slot LCR | М | | 9.2.3.12a | | ı | |
| >UL Timeslot ISCP | М | | 9.2.3.26A | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofULtsLCR | Maximum number of Uplink time slots per Radio Link for 1.28Mcps |
| | TDD |

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9.2.3.131 **Uplink Synchronisation Frequency**

The UL Synchronisation Frequency IE specifies the frequency of the adjustment of the uplink transmission timing.

| | E/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------|-----------------|----------|-------|--------------------------|-------------------------|
| Uplink | synchronisation | | | INTEGER (18) | Unit: subframe, step: 1 |
| freque | ency | | | | |

9.2.3.13J Uplink Synchronisation Step Size

The UL Synchronisation Step Size IE specifies the step size to be used for the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|--------------------------|
| Uplink synchronisation step | | | INTEGER (18) | Unit: 1/8 chip, step: 1. |
| size | | | | |

9.2.3.13K Uplink Timing Advance Control LCR

The Uplink Timing Advance Control LCR indicates the parameters which are used to support Uplink Synchronisation for the UE in 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|--------------------------|--|
| SYNC UL codes bitmap | М | | BITSTRING (8) | Each bit indicates the availability of a SYNC_UL code. |
| FPACH info | | 1 | | |
| >Time Slot LCR | M | | 9.2.3.12a | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | |
| >Midamble Shift LCR | M | | 9.2.3.4C | |
| >WT | M | | INTEGER (14) | Maximum number of subframes to wait for transmission of FPACH. |
| PRXupPCHdes | М | | INTEGER (-120 – 58,) | Desired UpPCH receive power. Unit: dBm Step size: 1 |
| SYNC UL procedure parameters | | 1 | | |
| >Maximum Sync UL transmissions | М | | ENUMERATED (1,2,4,8,) | |
| >Power Ramp Step | М | | INTEGER (03,) | |
| Mmax | М | | INTEGER (132) | Maximum number of synchronisation attempts |

USCH ID 9.2.3.14

The USCH ID is the identifier of an uplink shared channel. It is unique among the USCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| USCH ID | | | INTEGER | |
| | | | (0255) | |

9.2.3.15 USCH Information

The USCH Information IE provides information for USCHs to be established.

| IE/Group Name | Presenc e | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|--------------|---|-----------------------------|---|-------------|-------------------------|
| USCH Information | | 1 to <maxnoofu SCHs></maxnoofu | | | - | |
| >USCH ID | M | | 9.2.3.14 | | _ | |
| >CCTrCH ID | M | | 9.2.3.2 | UL CCTrCH in which the USCH is mapped | _ | |
| >TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >Transport Format Set | М | | 9.2.1.64 | For USCH | _ | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >BLER | M | | 9.2.1.4 | | | |
| >RB Info | | 1 <maxnoof RB></maxnoof | | All Radio Bearers using this USCH | _ | |
| >>RB Identity | M | | 9.2.3.5B | | _ | |
| >Traffic class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |

| Range bound | Explanation |
|--------------|---|
| maxnoofUSCHs | Maximum number of USCHs for one UE. |
| maxnoofRBs | Maximum number of Radio Bearers for one UE. |

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of RNSAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclause 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of RNSAP messages. RNSAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a RNSAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list in which the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a RNSAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

9.3.1 Usage of Private Message Mechanism for Non-standard Use

The private message mechanism for non-standard use may be used:

- for special operator (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multivendor inter-operability.
- by vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 Elementary Procedure Definitions

```
__ ********************
RNSAP-PDU-Descriptions {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Descriptions (0) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
      ****************
-- IE parameter types from other modules.
__ ********************
IMPORTS
   Criticality,
   ProcedureID,
   TransactionID
FROM RNSAP-CommonDataTypes
   CommonMeasurementFailureIndication.
   CommonMeasurementInitiationFailure,
   CommonMeasurementInitiationRequest,
   CommonMeasurementInitiationResponse,
   CommonMeasurementReport,
   CommonMeasurementTerminationRequest,
   CommonTransportChannelResourcesFailure,
   CommonTransportChannelResourcesRequest,
   CommonTransportChannelResourcesReleaseRequest,
   CommonTransportChannelResourcesResponseFDD,
   CommonTransportChannelResourcesResponseTDD,
   CompressedModeCommand,
   DedicatedMeasurementFailureIndication,
   DedicatedMeasurementInitiationFailure,
   DedicatedMeasurementInitiationRequest,
   DedicatedMeasurementInitiationResponse,
   DedicatedMeasurementReport,
   DedicatedMeasurementTerminationRequest,
   DL-PowerControlRequest,
   DL-PowerTimeslotControlRequest,
   DownlinkSignallingTransferRequest,
   ErrorIndication,
   InformationExchangeFailureIndication,
   InformationExchangeInitiationFailure,
   InformationExchangeInitiationRequest,
   InformationExchangeInitiationResponse,
   InformationExchangeTerminationRequest,
   InformationReport,
   PagingRequest,
```

```
PhysicalChannelReconfigurationCommand,
    PhysicalChannelReconfigurationFailure,
    PhysicalChannelReconfigurationRequestFDD,
    PhysicalChannelReconfigurationRequestTDD,
    PrivateMessage,
    RadioLinkActivationCommandFDD,
    RadioLinkActivationCommandTDD,
   RadioLinkAdditionFailureFDD,
    RadioLinkAdditionFailureTDD,
   RadioLinkAdditionRequestFDD,
   RadioLinkAdditionRequestTDD,
   RadioLinkAdditionResponseFDD,
   RadioLinkAdditionResponseTDD,
    RadioLinkCongestionIndication,
   RadioLinkDeletionRequest,
   RadioLinkDeletionResponse,
   RadioLinkFailureIndication,
   RadioLinkParameterUpdateIndicationFDD,
   RadioLinkParameterUpdateIndicationTDD,
   RadioLinkPreemptionRequiredIndication,
   RadioLinkReconfigurationCancel,
   RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationFailure,
   RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
   RadioLinkReconfigurationReadyFDD,
    RadioLinkReconfigurationReadyTDD,
   RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponseFDD,
   RadioLinkReconfigurationResponseTDD,
    RadioLinkRestoreIndication,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
   RelocationCommit,
   ResetRequest,
    ResetResponse,
   UplinkSignallingTransferIndicationFDD,
   UplinkSignallingTransferIndicationTDD,
    GERANUplinkSignallingTransferIndication
FROM RNSAP-PDU-Contents
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReporting,
    id-commonMeasurementTermination,
    id-commonTransportChannelResourcesInitialisation,
```

```
id-commonTransportChannelResourcesRelease,
   id-compressedModeCommand,
    id-downlinkPowerControl,
    id-downlinkSignallingTransfer,
    id-downlinkPowerTimeslotControl,
    id-errorIndication,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation.
    id-dedicatedMeasurementReporting,
    id-dedicatedMeasurementTermination,
    id-paging,
    id-physicalChannelReconfiguration,
    id-privateMessage,
    id-radioLinkActivation,
    id-radioLinkAddition,
    id-radioLinkCongestion,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkParameterUpdate,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-relocationCommit,
    id-reset,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPreparation,
    id-unSynchronisedRadioLinkReconfiguration,
    id-uplinkSignallingTransfer,
    id-gERANuplinkSignallingTransfer
FROM RNSAP-Constants;
      ****************
-- Interface Elementary Procedure Class
__ **********************
RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
   &InitiatingMessage
   &SuccessfulOutcome
                                  OPTIONAL,
   &UnsuccessfulOutcome
                                      OPTIONAL,
   &Outcome
                              OPTIONAL,
   &procedureID
                          ProcedureID
                                          UNIQUE,
    &criticality
                          Criticality
                                          DEFAULT ignore
WITH SYNTAX {
```

```
INITIATING MESSAGE
                          &InitiatingMessage
   [SUCCESSFUL OUTCOME
                          &SuccessfulOutcome1
   [UNSUCCESSFUL OUTCOME
                             &UnsuccessfulOutcome |
    OUTCOME
                      &Outcome1
   PROCEDURE ID
                          &procedureID
    [CRITICALITY
                          &criticality]
      -- Interface PDU Definition
__ ********************
RNSAP-PDU ::= CHOICE {
   initiatingMessage InitiatingMessage,
   successfulOutcome SuccessfulOutcome,
   unsuccessfulOutcome UnsuccessfulOutcome,
   outcome
                  Outcome,
InitiatingMessage ::= SEQUENCE {
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}),
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
   transactionID TransactionID,
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   value
              RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage
SuccessfulOutcome ::= SEOUENCE {
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   transactionID TransactionID,
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   value
              RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome
UnsuccessfulOutcome ::= SEOUENCE {
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
   transactionID TransactionID,
              RNSAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   value
Outcome ::= SEOUENCE {
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
   transactionID TransactionID,
   value
              RNSAP-ELEMENTARY-PROCEDURE. & Outcome
                                                    ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   ************
```

```
-- Interface Elementary Procedure List
  *****************
RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-1
   RNSAP-ELEMENTARY-PROCEDURES-CLASS-2
   RNSAP-ELEMENTARY-PROCEDURES-CLASS-3
RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
   radioLinkSetupFDD
   radioLinkSetupTDD
   radioLinkAdditionFDD
   radioLinkAdditionTDD
   radioLinkDeletion
    synchronisedRadioLinkReconfigurationPreparationFDD
    synchronisedRadioLinkReconfigurationPreparationTDD
   un Synchronised Radio Link Reconfiguration FDD\\
   un Synchronised Radio Link Reconfiguration TDD\\
   physicalChannelReconfigurationFDD
   physicalChannelReconfigurationTDD
    dedicatedMeasurementInitiation
    commonTransportChannelResourcesInitialisationFDD
    \verb|commonTransportChannelResourcesInitialisationTDD| \\
    . . . ,
    commonMeasurementInitiation
    informationExchangeInitiation
    reset
RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
   uplinkSignallingTransferFDD
   uplinkSignallingTransferTDD
   downlinkSignallingTransfer
    relocationCommit
   paging
    synchronisedRadioLinkReconfigurationCommit
    synchronisedRadioLinkReconfigurationCancellation
    radioLinkFailure
   radioLinkPreemption
   radioLinkRestoration
    dedicatedMeasurementReporting
    dedicatedMeasurementTermination
    dedicatedMeasurementFailure
    downlinkPowerControlFDD
    downlinkPowerTimeslotControl
    compressedModeCommandFDD
    commonTransportChannelResourcesRelease
```

```
errorIndication
   privateMessage
   . . . .
   radioLinkCongestion
   commonMeasurementFailure
   commonMeasurementReporting
   commonMeasurementTermination
   informationExchangeFailure
   informationExchangeTermination
   informationReporting
   radioLinkActivationFDD
   radioLinkActivationTDD
   gERANuplinkSignallingTransfer
   radioLinkParameterUpdateFDD
   radioLinkParameterUpdateTDD
RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
     **************
-- Interface Elementary Procedures
  radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkSetupRequestFDD
   SUCCESSFUL OUTCOME RadioLinkSetupResponseFDD
   UNSUCCESSFUL OUTCOME
                         RadioLinkSetupFailureFDD
   PROCEDURE ID
                      { procedureCode id-radioLinkSetup, ddMode fdd }
   CRITICALITY
                  reject
radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkSetupRequestTDD
   SUCCESSFUL OUTCOME RadioLinkSetupResponseTDD
                         RadioLinkSetupFailureTDD
   UNSUCCESSFUL OUTCOME
   PROCEDURE ID
                      { procedureCode id-radioLinkSetup, ddMode tdd }
   CRITICALITY
                  reject
radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkAdditionRequestFDD
   SUCCESSFUL OUTCOME RadioLinkAdditionResponseFDD
   UNSUCCESSFUL OUTCOME
                         RadioLinkAdditionFailureFDD
   PROCEDURE ID
                      { procedureCode id-radioLinkAddition , ddMode fdd }
   CRITICALITY
                  reject
```

```
radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME RadioLinkAdditionResponseTDD
   UNSUCCESSFUL OUTCOME
                           RadioLinkAdditionFailureTDD
    PROCEDURE ID
                        { procedureCode id-radioLinkAddition , ddMode tdd }
    CRITICALITY
                    reject
radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME RadioLinkDeletionResponse
    PROCEDURE ID
                        { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY
                    reject
synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyFDD
                           RadioLinkReconfigurationFailure
   UNSUCCESSFUL OUTCOME
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME
                            RadioLinkReconfigurationFailure
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseFDD
    UNSUCCESSFUL OUTCOME
                            RadioLinkReconfigurationFailure
                        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseTDD
   UNSUCCESSFUL OUTCOME
                           RadioLinkReconfigurationFailure
                        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME
                           PhysicalChannelReconfigurationFailure
```

```
PROCEDURE ID
                        { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    CRITICALITY
                    reject
physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
   UNSUCCESSFUL OUTCOME
                           PhysicalChannelReconfigurationFailure
    PROCEDURE ID
                        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    CRITICALITY
                    reject
dedicatedMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME DedicatedMeasurementInitiationResponse
                           DedicatedMeasurementInitiationFailure
   UNSUCCESSFUL OUTCOME
                        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
   PROCEDURE ID
    CRITICALITY
                   reject
commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseFDD
   UNSUCCESSFUL OUTCOME
                            CommonTransportChannelResourcesFailure
                        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseTDD
                           CommonTransportChannelResourcesFailure
   UNSUCCESSFUL OUTCOME
    PROCEDURE ID
                        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode tdd }
    CRITICALITY
                   reject
uplinkSignallingTransferFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationFDD
    PROCEDURE ID
                        { procedureCode id-uplinkSignallingTransfer, ddMode fdd }
    CRITICALITY
                    ignore
uplinkSignallingTransferTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationTDD
    PROCEDURE ID
                        { procedureCode id-uplinkSignallingTransfer, ddMode tdd }
    CRITICALITY
                    ignore
downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DownlinkSignallingTransferRequest
                        { procedureCode id-downlinkSignallingTransfer, ddMode common }
```

```
CRITICALITY
                    ignore
relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RelocationCommit
                        { procedureCode id-relocationCommit, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
paging RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PagingRequest
    PROCEDURE ID
                        { procedureCode id-paging, ddMode common }
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCommit
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCancel
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY
                    ignore
radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkFailureIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkPreemption RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkPreemptionRequiredIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY
                    ignore
radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkRestoreIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY
                    ignore
dedicatedMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementReport
                        { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
```

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```
dedicatedMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE DedicatedMeasurementTerminationRequest
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY
                    ignore
dedicatedMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementFailureIndication
                        { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkCongestionIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkCongestion, ddMode common }
                    reject
    CRITICALITY
downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerControlRequest
    PROCEDURE ID
                        { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY
                    ignore
downlinkPowerTimeslotControl RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerTimeslotControlRequest
    PROCEDURE ID
                        { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY
                    ignore
compressedModeCommandFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CompressedModeCommand
    PROCEDURE ID
                        { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY
                    ignore
commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesReleaseRequest
    PROCEDURE ID
                        { procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    CRITICALITY
                    ignore
errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE ErrorIndication
                        { procedureCode id-errorIndication, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME
                            CommonMeasurementInitiationResponse
```

```
CommonMeasurementInitiationFailure
    UNSUCCESSFUL OUTCOME
    PROCEDURE ID
                            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY
commonMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementReport
    PROCEDURE ID
                        { procedureCode id-commonMeasurementReporting, ddMode common }
    CRITICALITY
commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementTerminationRequest
    PROCEDURE ID
                        { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY
                    ignore
commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementFailureIndication
                        { procedureCode id-commonMeasurementFailure, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeInitiationRequest
    INITIATING MESSAGE
    SUCCESSFUL OUTCOME
                            InformationExchangeInitiationResponse
   UNSUCCESSFUL OUTCOME
                            InformationExchangeInitiationFailure
                            { procedureCode id-informationExchangeInitiation, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationReport
                            { procedureCode id-informationReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeTerminationRequest
    PROCEDURE ID
                            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY
                            ignore
informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeFailureIndication
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY
                            ignore
privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PrivateMessage
```

```
PROCEDURE ID
                        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY
                    ignore
reset RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ResetRequest
    SUCCESSFUL OUTCOME
                            ResetResponse
    PROCEDURE ID
                            { procedureCode id-reset, ddMode common }
    CRITICALITY
                            reject
radioLinkActivationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkActivationCommandFDD
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY
radioLinkActivationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkActivationCommandTDD
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY
                            ignore
gERANuplinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE GERANUplinkSignallingTransferIndication
    PROCEDURE ID
                        { procedureCode id-gERANuplinkSignallingTransfer, ddMode common }
    CRITICALITY
                    ignore
radioLinkParameterUpdateFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkParameterUpdateIndicationFDD
                            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            ignore
radioLinkParameterUpdateTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkParameterUpdateIndicationTDD
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
    CRITICALITY
                            ignore
END
```

9.3.3 PDU Definitions

```
__ ********************
RNSAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Contents (1) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
__ **********************
-- IE parameter types from other modules.
__ *********************
IMPORTS
   Active-Pattern-Sequence-Information,
   AllocationRetentionPriority,
   AllowedOueuingTime,
   Allowed-Rate-Information,
   AlphaValue,
   AntennaColocationIndicator,
   BLER,
   SCTD-Indicator,
   BindingID,
   C-ID,
   C-RNTI,
   CCTrCH-ID,
   ClosedLoopModel-SupportIndicator,
   ClosedLoopMode2-SupportIndicator,
   Closedlooptimingadjustmentmode,
   CN-CS-DomainIdentifier,
   CN-PS-DomainIdentifier,
   CNDomainType,
   Cause,
   CellCapabilityContainer-FDD,
   CellCapabilityContainer-TDD,
   CellCapabilityContainer-TDD-LCR,
   CellParameterID,
   ChipOffset,
   CommonMeasurementAccuracy,
   CommonMeasurementType,
   CommonMeasurementValue,
   CommonMeasurementValueInformation,
   {\tt CommonTransportChannelResourcesInitialisationNotRequired,}
   CongestionCause,
   CoverageIndicator,
   CriticalityDiagnostics,
```

```
D-RNTI.
D-RNTI-ReleaseIndication,
DCH-FDD-Information,
DCH-ID,
DCH-InformationResponse,
DCH-TDD-Information,
DL-DPCH-SlotFormat,
DL-TimeslotISCP,
DL-Power,
DL-PowerBalancing-Information,
DL-PowerBalancing-ActivationIndicator,
DL-PowerBalancing-UpdatedIndicator,
DL-ReferencePowerInformation,
DL-ScramblingCode,
DL-Timeslot-Information,
DL-TimeslotLCR-Information,
DL-TimeSlot-ISCP-Info,
DL-TimeSlot-ISCP-LCR-Information,
DPC-Mode,
DPC-Mode-Change-SupportIndicator,
DPCH-ID,
DL-DPCH-TimingAdjustment,
DRACControl,
DRXCycleLengthCoefficient,
DedicatedMeasurementType,
DedicatedMeasurementValue,
DedicatedMeasurementValueInformation,
DelayedActivation,
DelayedActivationUpdate,
DiversityControlField,
DiversityMode,
DSCH-FDD-Information,
DSCH-FDD-InformationResponse,
DSCH-FlowControlInformation,
DSCH-FlowControlItem,
DSCH-TDD-Information,
DSCH-ID,
DSCH-RNTI,
SchedulingPriorityIndicator,
EnhancedDSCHPC,
EnhancedDSCHPCCounter,
EnhancedDSCHPCIndicator,
EnhancedDSCHPCWnd,
EnhancedDSCHPowerOffset,
Enhanced-PrimaryCPICH-EcNo,
FACH-FlowControlInformation,
FDD-DCHs-to-Modify,
FDD-DL-ChannelisationCodeNumber,
FDD-DL-CodeInformation,
FDD-S-CCPCH-Offset,
FDD-TPC-DownlinkStepSize,
```

```
FirstRLS-Indicator,
FNReportingIndicator,
FrameHandlingPriority,
FrameOffset,
GA-AccessPointPosition,
GA-Cell,
GA-CellAdditionalShapes,
HCS-Prio,
HSDSCH-FDD-Information,
HSDSCH-FDD-Information-Response,
HSDSCH-FDD-Update-Information,
HSDSCH-TDD-Update-Information,
HSDSCH-Information-to-Modify,
HSDSCH-MACdFlow-ID,
HSDSCH-RNTI,
HSDSCH-TDD-Information,
HSDSCH-TDD-Information-Response,
HS-SICH-ID,
IMSI,
InformationExchangeID,
InformationReportCharacteristics,
InformationType,
InnerLoopDLPCStatus,
L3-Information,
SplitType,
LengthOfTFCI2,
LimitedPowerIncrease,
MaximumAllowedULTxPower,
MaxNrDLPhysicalchannels,
MaxNrDLPhysicalchannelsTS,
MaxNrOfUL-DPCHs,
MaxNrTimeslots,
MaxNrULPhysicalchannels,
MeasurementFilterCoefficient,
MeasurementID,
MidambleAllocationMode,
MidambleShiftAndBurstType,
MidambleShiftLCR,
MinimumSpreadingFactor,
MinUL-ChannelisationCodeLength,
MultiplexingPosition,
NeighbouringFDDCellMeasurementInformation,
NeighbouringTDDCellMeasurementInformation,
Neighbouring-GSM-CellInformation,
Neighbouring-UMTS-CellInformation,
NeighbouringTDDCellMeasurementInformationLCR,
NrOfDLchannelisationcodes,
PagingCause,
PagingRecordType,
PartialReportingIndicator,
PDSCHCodeMapping,
```

```
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PC-Preamble,
Permanent-NAS-UE-Identity,
Phase-Reference-Update-Indicator,
PowerAdjustmentType,
PowerOffset,
PrimaryCCPCH-RSCP,
PrimaryCPICH-EcNo,
PrimaryCPICH-Power,
Primary-CPICH-Usage-For-Channel-Estimation,
PrimaryScramblingCode,
PropagationDelay,
PunctureLimit,
QE-Selector,
Oth-Parameter,
RANAP-RelocationInformation,
RB-Info,
RL-ID,
RL-Set-ID,
RNC-ID.
RepetitionLength,
RepetitionPeriod,
ReportCharacteristics,
Received-total-wide-band-power,
RequestedDataValue,
RequestedDataValueInformation,
RL-Specific-DCH-Info,
RxTimingDeviationForTA,
S-FieldLength,
S-RNTI,
S-RNTI-Group,
SCH-TimeSlot,
SAI,
SFN,
Secondary-CCPCH-Info,
Secondary-CCPCH-Info-TDD,
Secondary-CPICH-Information-Change,
Secondary-LCR-CCPCH-Info-TDD,
SNA-Information,
SpecialBurstScheduling,
SSDT-CellID,
SSDT-CellID-Length,
SSDT-Indication,
SSDT-SupportIndicator,
STTD-Indicator,
STTD-SupportIndicator,
AdjustmentPeriod,
ScaledAdjustmentRatio,
MaxAdjustmentStep,
SecondaryCCPCH-SlotFormat,
```

```
SRB-Delay,
Support-8PSK,
SyncCase,
SynchronisationConfiguration,
TDD-ChannelisationCode,
TDD-DCHs-to-Modify,
TDD-DL-Code-Information,
TDD-DPCHOffset,
TDD-PhysicalChannelOffset,
TDD-TPC-DownlinkStepSize,
TDD-ChannelisationCodeLCR,
TDD-DL-Code-LCR-Information,
TDD-UL-Code-Information,
TDD-UL-Code-LCR-Information,
TFCI-Coding,
TFCI-PC-SupportIndicator,
TFCI-Presence,
TFCI-SignallingMode,
TimeSlot,
TimeSlotLCR,
TimingAdvanceApplied,
ToAWE,
ToAWS,
TrafficClass,
TransmitDiversityIndicator,
TransportBearerID,
TransportBearerRequestIndicator,
TFCS,
Transmission-Gap-Pattern-Sequence-Information,
TransportFormatManagement,
TransportFormatSet,
TransportLayerAddress,
TrCH-SrcStatisticsDescr,
TSTD-Indicator,
TSTD-Support-Indicator,
UARFCN,
UC-ID,
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
UL-DPCCH-SlotFormat,
UL-SIR,
UL-FP-Mode,
UL-PhysCH-SF-Variation,
UL-ScramblingCode,
UL-Timeslot-Information,
UL-TimeslotLCR-Information,
UL-TimeSlot-ISCP-Info,
UL-TimeSlot-ISCP-LCR-Info,
URA-ID,
URA-Information,
USCH-ID,
```

```
USCH-Information,
   UL-Synchronisation-Parameters-LCR,
   TDD-DL-DPCH-TimeSlotFormat-LCR,
    TDD-UL-DPCH-TimeSlotFormat-LCR,
   MAChs-ResetIndicator,
   UL-TimingAdvanceCtrl-LCR,
    TDD-TPC-UplinkStepSize-LCR
FROM RNSAP-IEs
    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-ContainerList{},
    ProtocolIE-ContainerPair{},
    ProtocolIE-ContainerPairList{},
   ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers
    maxNoOfDSCHs,
    maxNoOfUSCHs,
   maxNrOfCCTrCHs,
   maxNrOfDCHs,
    maxNrOfTS,
   maxNrOfDPCHs,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLSets-1,
    maxNrOfRLs-1,
   maxNrOfRLs-2,
    maxNrOfULTs,
   maxNrOfDLTs,
    maxResetContext,
    maxResetContextGroup,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR,
   maxNrOfDLTsLCR,
   maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    maxNrOfHSSICHs,
    id-Active-Pattern-Sequence-Information,
    id-AdjustmentRatio,
```

```
id-AllowedOueuingTime,
id-AntennaColocationIndicator,
id-BindingID,
id-C-ID,
id-C-RNTI,
id-CFN,
id-CFNReportingIndicator,
id-CN-CS-DomainIdentifier,
id-CN-PS-DomainIdentifier,
id-Cause,
id-CauseLevel-RL-AdditionFailureFDD,
id-CauseLevel-RL-AdditionFailureTDD,
id-CauseLevel-RL-ReconfFailure,
id-CauseLevel-RL-SetupFailureFDD,
id-CauseLevel-RL-SetupFailureTDD,
id-CCTrCH-InformationItem-RL-FailureInd,
id-CCTrCH-InformationItem-RL-RestoreInd,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
id-ClosedLoopModel-SupportIndicator,
id-ClosedLoopMode2-SupportIndicator,
id-CNOriginatedPage-PagingRqst,
id-CommonMeasurementAccuracy,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rgst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
\verb|id-CommonTransportChannelResourcesInitialisationNotRequired|,\\
id-CongestionCause,
id-CoverageIndicator,
id-CriticalityDiagnostics,
id-D-RNTI,
id-D-RNTI-ReleaseIndication,
id-DCHs-to-Add-FDD,
id-DCHs-to-Add-TDD,
id-DCH-DeleteList-RL-ReconfPrepFDD,
id-DCH-DeleteList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfRqstFDD,
id-DCH-DeleteList-RL-ReconfRgstTDD,
id-DCH-FDD-Information,
id-DCH-TDD-Information,
id-FDD-DCHs-to-Modify,
id-TDD-DCHs-to-Modify,
id-DCH-InformationResponse,
id-DCH-Rate-InformationItem-RL-CongestInd,
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
```

```
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD,
id-DL-CCTrCH-InformationListIE-PhyChReconfRgstTDD,
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD.
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD.
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
id-FDD-DL-CodeInformation,
id-DL-DPCH-Information-RL-ReconfPrepFDD,
id-DL-DPCH-Information-RL-SetupRgstFDD,
id-DL-DPCH-Information-RL-ReconfRqstFDD,
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
id-DL-DPCH-InformationItem-RL-SetupRspTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-DL-DPCH-TimingAdjustment,
id-DL-Physical-Channel-Information-RL-SetupRgstTDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-PowerBalancing-UpdatedIndicator,
id-DL-ReferencePowerInformation.
id-DLReferencePower.
id-DLReferencePowerList-DL-PC-Rgst,
id-DL-ReferencePowerInformation-DL-PC-Rgst,
id-DRXCycleLengthCoefficient,
id-DedicatedMeasurementObjectType-DM-Fail,
id-DedicatedMeasurementObjectType-DM-Fail-Ind,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rqst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,
id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode,
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-FDD,
id-DSCHs-to-Add-TDD,
id-DSCH-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Delete-RL-ReconfPrepFDD,
id-DSCH-FDD-Information,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
```

```
id-DSCH-TDD-Information,
id-DSCH-FDD-InformationResponse,
id-DSCH-ModifyList-RL-ReconfPrepTDD.
id-DSCH-Modify-RL-ReconfPrepFDD,
id-DSCH-RNTI,
id-DSCHsToBeAddedOrModified-FDD,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-EnhancedDSCHPC.
id-EnhancedDSCHPCIndicator,
id-Enhanced-PrimaryCPICH-EcNo,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
id-GA-Cell,
id-GA-CellAdditionalShapes,
id-HCS-Prio,
id-HSDSCH-FDD-Information,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-FDD-Information-to-Add,
id-HSDSCH-FDD-Information-to-Delete,
id-HSDSCH-FDD-Update-Information,
id-HSDSCH-TDD-Update-Information,
id-HSDSCH-Information-to-Modify,
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd,
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
id-HSDSCH-RNTI,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSDSCH-TDD-Information-Response-LCR,
id-HSDSCH-TDD-Information-to-Add,
id-HSDSCH-TDD-Information-to-Delete,
id-HSPDSCH-RL-ID,
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
id-HSSICH-Info-DM-Rprt,
id-HSSICH-Info-DM-Rast,
id-HSSICH-Info-DM-Rsp,
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rgst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationReportCharacteristics,
id-InformationType,
id-InnerLoopDLPCStatus,
id-SplitType,
id-LengthOfTFCI2,
id-L3-Information,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MeasurementFilterCoefficient,
id-MeasurementID,
```

```
id-PagingArea-PagingRgst,
id-PartialReportingIndicator,
id-PDSCH-RL-ID,
id-Permanent-NAS-UE-Identity,
id-Phase-Reference-Update-Indicator,
id-FACH-FlowControlInformation,
id-PowerAdjustmentType,
id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
id-Primary-CPICH-Usage-For-Channel-Estimation.
id-PropagationDelay,
id-Qth-Parameter,
id-RANAP-RelocationInformation,
id-ResetIndicator,
id-RL-Information-PhyChReconfRqstFDD,
id-RL-Information-PhyChReconfRqstTDD,
id-RL-Information-RL-AdditionRqstFDD,
id-RL-Information-RL-AdditionRqstTDD,
id-RL-Information-RL-DeletionRqst,
id-RL-Information-RL-FailureInd,
id-RL-Information-RL-ReconfPrepFDD,
id-RL-Information-RL-RestoreInd.
id-RL-Information-RL-SetupRgstFDD,
id-RL-Information-RL-SetupRgstTDD,
id-RL-InformationItem-RL-CongestInd,
id-RL-InformationItem-DM-Rprt,
id-RL-InformationItem-DM-Rgst,
id-RL-InformationItem-DM-Rsp,
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-SetupRqstFDD,
id-RL-InformationList-RL-CongestInd,
id-RL-InformationList-RL-AdditionRgstFDD,
id-RL-InformationList-RL-DeletionRqst,
id-RL-InformationList-RL-PreemptRequiredInd,
id-RL-InformationList-RL-ReconfPrepFDD,
id-RL-InformationResponse-RL-AdditionRspTDD,
id-RL-InformationResponse-RL-ReconfReadyTDD,
id-RL-InformationResponse-RL-ReconfRspTDD,
id-RL-InformationResponse-RL-SetupRspTDD,
id-RL-InformationResponseItem-RL-AdditionRspFDD,
id-RL-InformationResponseItem-RL-ReconfReadyFDD,
id-RL-InformationResponseItem-RL-ReconfRspFDD,
id-RL-InformationResponseItem-RL-SetupRspFDD,
id-RL-InformationResponseList-RL-AdditionRspFDD,
id-RL-InformationResponseList-RL-ReconfReadyFDD,
id-RL-InformationResponseList-RL-ReconfRspFDD,
id-RL-InformationResponseList-RL-SetupRspFDD,
id-RL-ParameterUpdateIndicationFDD-RL-Information-Item,
id-RL-ParameterUpdateIndicationFDD-RL-InformationList,
id-RL-ReconfigurationFailure-RL-ReconfFail,
id-RL-ReconfigurationReadyTDD-RL-Information,
id-RL-ReconfigurationRequestFDD-RL-InformationList,
```

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```
id-RL-ReconfigurationReguestFDD-RL-Information-IEs,
id-RL-ReconfigurationRequestTDD-RL-Information,
id-RL-Specific-DCH-Info,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rgst,
id-RL-Set-InformationItem-DM-Rsp.
id-RL-Set-Information-RL-FailureInd,
id-RL-Set-Information-RL-RestoreInd,
id-RL-Set-Successful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
id-RL-Successful-InformationItem-DM-Fail,
id-RL-Unsuccessful-InformationItem-DM-Fail,
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind.
id-ReportCharacteristics.
id-Reporting-Object-RL-FailureInd,
id-Reporing-Object-RL-RestoreInd,
id-RNC-ID,
id-RxTimingDeviationForTA,
id-S-RNTI,
id-SAI.
id-Secondary-CPICH-Information-Change,
id-SFNReportingIndicator,
id-SNA-Information,
id-SRNC-ID,
id-SSDT-CellIDforEDSCHPC.
id-STTD-SupportIndicator,
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-TDD-maxNrDLPhysicalchannels,
id-TDD-Support-8PSK,
id-TFCI-PC-SupportIndicator,
id-timeSlot-ISCP,
id-TimeSlot-RL-SetupRspTDD,
id-TransportBearerID,
id-TransportBearerRequestIndicator,
id-TransportLayerAddress,
id-UC-ID,
id-ContextInfoItem-Reset,
id-ContextGroupInfoItem-Reset,
id-Transmission-Gap-Pattern-Sequence-Information,
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
```

```
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD.
id-UL-CCTrCH-InformationList-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRqstFDD,
id-UL-DPCH-Information-RL-SetupRgstFDD.
id-UL-DPCH-InformationItem-PhyChReconfRgstTDD,
id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
id-UL-DPCH-InformationItem-RL-SetupRspTDD,
id-UL-DPCH-InformationAddListIE-RL-ReconfReadvTDD.
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-UL-Physical-Channel-Information-RL-SetupRqstTDD,
id-UL-SIRTarget.
id-URA-Information.
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
id-USCHs-to-Add,
id-USCH-DeleteList-RL-ReconfPrepTDD,
id-USCH-InformationListIE-RL-AdditionRspTDD,
id-USCH-InformationListIEs-RL-SetupRspTDD,
id-USCH-Information,
id-USCH-ModifyList-RL-ReconfPrepTDD,
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD,
id-RL-LCR-InformationResponse-RL-SetupRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRgstTDD,
id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
```

```
id-UL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD,
   id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD,
   id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD,
   id-TSTD-Support-Indicator-RL-SetupRgstTDD.
   id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
    id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
   id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
   id-neighbouringTDDCellMeasurementInformationLCR,
   id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
    id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD,
   id-TrafficClass,
   id-UL-Synchronisation-Parameters-LCR,
    id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD.
   id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
   id-MAChs-ResetIndicator,
   id-UL-TimingAdvanceCtrl-LCR,
   id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD,
   id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD,
   id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD,
    id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD,
   id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD,
   id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD,
    id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
    id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
   id-DL-CCTrCH-InformationList-RL-ReconfRspTDD,
    id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRgstTDD,
   id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
   id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD,
   id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
   id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD
FROM RNSAP-Constants;
     -- RADIO LINK SETUP REQUEST FDD
    *****************
RadioLinkSetupRequestFDD ::= SEOUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkSetupRequestFDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}
                                                                                                                    OPTIONAL,
```

id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,

```
RadioLinkSetupRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                    CRITICALITY reject TYPE RNC-ID
                                                                                        PRESENCE mandatory}
      ID id-S-RNTI
                                    CRITICALITY reject TYPE S-RNTI
                                                                                        PRESENCE mandatory }
      ID id-D-RNTI
                                    CRITICALITY reject TYPE D-RNTI
                                                                                    PRESENCE optional } |
      ID id-AllowedOueuingTime
                                        CRITICALITY reject TYPE AllowedOueuingTime
                                                                                                PRESENCE optional
     ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE UL-DPCH-Information-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
      ID id-DL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE DL-DPCH-Information-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
     ID id-DCH-FDD-Information
                                    CRITICALITY reject TYPE DCH-FDD-Information
                                                                                        PRESENCE mandatory }
     ID id-DSCH-FDD-Information
                                    CRITICALITY reject TYPE DSCH-FDD-Information
                                                                                            PRESENCE optional
     ID id-RL-Information-RL-SetupRgstFDD
                                                CRITICALITY notify TYPE RL-InformationList-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
    { ID id-Transmission-Gap-Pattern-Sequence-Information
                                                                CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information
                                                                                                                                         PRESENCE
    optional }
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE
    ul-ScramblingCode
                                    UL-ScramblingCode,
    minUL-ChannelisationCodeLength
                                            MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs
                                    MaxNrOfUL-DPCHs
                                                            OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
   ul-PunctureLimit
                                    PunctureLimit,
   ul-TFCS
                                    TFCS.
   ul-DPCCH-SlotFormat
                                    UL-DPCCH-SlotFormat,
    ul-SIRTarget
                                    UL-SIR
                                                    OPTIONAL,
    diversityMode
                                    DiversityMode,
    sSDT-CellIdLength
                                    SSDT-CellID-Length
                                                            OPTIONAL.
                                                            OPTIONAL,
    s-FieldLength
                                    S-FieldLength
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRgstFDD-ExtIEs} } OPTIONAL,
UL-DPCH-Information-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-DPC-Mode
                                    CRITICALITY reject
                                                            EXTENSION DPC-Mode PRESENCE optional },
    . . .
DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    t.FCS
                                    TFCS,
    dl-DPCH-SlotFormat
                                    DL-DPCH-SlotFormat,
   nrOfDLchannelisationcodes
                                    NrOfDLchannelisationcodes,
    tFCI-SignallingMode
                                    TFCI-SignallingMode,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition
                                        MultiplexingPosition,
    powerOffsetInformation
                                        PowerOffsetInformation-RL-SetupRgstFDD,
    fdd-dl-TPC-DownlinkStepSize
                                    FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease
                                    LimitedPowerIncrease,
    innerLoopDLPCStatus
                                    InnerLoopDLPCStatus,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
```

```
DL-DPCH-Information-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-SplitType CRITICALITY reject EXTENSION SplitType PRESENCE optional }
   PowerOffsetInformation-RL-SetupRgstFDD ::= SEOUENCE {
      pol-ForTFCI-Bits
                                    PowerOffset,
      po2-ForTPC-Bits
                                    PowerOffset,
      po3-ForPilotBits
                                    PowerOffset,
      iE-Extensions
                                    ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-SetupRqstFDD
                                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD } }
RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
RL-InformationItem-RL-SetupRgstFDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   c-ID
                                C-ID.
   firstRLS-indicator
                                FirstRLS-Indicator,
   frameOffset
                                FrameOffset,
   chipOffset
                                ChipOffset,
   propagationDelay
                                PropagationDelay
                                                      OPTIONAL,
   diversityControlField
                                DiversityControlField
                                                          OPTIONAL
   -- This IE shall be present if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
   dl-InitialTX-Power
                                DL-Power
                                                  OPTIONAL,
   primaryCPICH-EcNo
                                PrimaryCPICH-EcNo
                                                          OPTIONAL,
                                SSDT-CellID
   sSDT-CellID
                                                  OPTIONAL,
   transmitDiversityIndicator
                                TransmitDiversityIndicator
                                                             OPTIONAL,
   -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
   iE-Extensions
                                ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
   . . .
RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-CellID
                                                                            PRESENCE conditional }
   -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Information IE.
     ID id-Enhanced-PrimaryCPICH-EcNo
                                               CRITICALITY ignore
                                                                        EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                              PRESENCE optional } |
     ID id-RL-Specific-DCH-Info CRITICALITY ignore
                                                      EXTENSION RL-Specific-DCH-Info
                                                                                      PRESENCE optional }
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
```

```
{ ID id-Oth-Parameter CRITICALITY ignore
                                                                               PRESENCE optional },
                                                  EXTENSION
                                                              Oth-Parameter
RadioLinkSetupReguestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                                                                                   PRESENCE optional } |
                                                  CRITICALITY ignore
                                                                             EXTENSION Permanent-NAS-UE-Identity
     ID id-DL-PowerBalancing-Information
                                              CRITICALITY ignore
                                                                      EXTENSION DL-PowerBalancing-Information
                                                                                                                   PRESENCE optional } |
     ID id-HSDSCH-FDD-Information
                                                                             EXTENSION HSDSCH-FDD-Information
                                                                                                                   PRESENCE optional } |
                                                  CRITICALITY reject
     ID id-HSPDSCH-RL-ID
                                                  CRITICALITY reject
                                                                             EXTENSION RL-ID
                                                                                                                   PRESENCE conditional } |
                                                                                             EXTENSION UE-Support-Of-Dedicated-Pilots-For-Channel-
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                      CRITICALITY ignore
Estimation
               PRESENCE optional } |
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH
                                                                                 CRITICALITY ignore
                                                                                                                  UE-Support-Of-Dedicated-Pilots-
                                                                                                       EXTENSION
For-Channel-Estimation-Of-HS-DSCH
                                      PRESENCE optional }.
     RADIO LINK SETUP REQUEST TDD
      *************
RadioLinkSetupRequestTDD ::= SEOUENCE {
                                                             {{RadioLinkSetupRequestTDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
                                   ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                     OPTIONAL,
    . . .
RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                                      CRITICALITY reject TYPE RNC-ID
                                                                                                                        PRESENCE mandatory }
     ID id-S-RNTI
                                                      CRITICALITY reject TYPE S-RNTI
                                                                                                                        PRESENCE mandatory }
     ID id-D-RNTI
                                                      CRITICALITY reject TYPE D-RNTI
                                                                                                                        PRESENCE optional }
     ID id-UL-Physical-Channel-Information-RL-SetupRgstTDD CRITICALITY reject TYPE UL-Physical-Channel-Information-RL-SetupRgstTDD
                                                                                                                                    PRESENCE
mandatory } |
    { ID id-DL-Physical-Channel-Information-RL-SetupRgstTDD CRITICALITY reject TYPE DL-Physical-Channel-Information-RL-SetupRgstTDD
                                                                                                                                    PRESENCE
mandatory } |
     ID id-AllowedOueuingTime
                                                      CRITICALITY reject TYPE AllowedQueuingTime
                                                                                                                        PRESENCE optional }
     ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                      CRITICALITY notify TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                        PRESENCE optional
     ID id-DL-CCTrCH-InformationList-RL-SetupRgstTDD
                                                      CRITICALITY notify TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                        PRESENCE optional }
     ID id-DCH-TDD-Information
                                      CRITICALITY reject TYPE DCH-TDD-Information
                                                                                             PRESENCE optional
     ID id-DSCH-TDD-Information
                                      CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                             PRESENCE optional
     ID id-USCH-Information
                                   CRITICALITY reject TYPE USCH-Information
                                                                                     PRESENCE optional }
    { ID id-RL-Information-RL-SetupRqstTDD
                                                      CRITICALITY reject TYPE RL-Information-RL-SetupRqstTDD
                                                                                                                        PRESENCE mandatory },
UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-UL
                                   MaxNrTimeslots,
   minimumSpreadingFactor-UL
                                   MinimumSpreadingFactor,
    maxNrULPhysicalchannels
                                  MaxNrULPhysicalchannels,
    iE-Extensions
                                   ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
```

```
UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-TDD-Support-8PSK
                               CRITICALITY ignore
                                                    EXTENSION Support-8PSK
                                                                             PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
   . . .
DL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
   maxNrTimeslots-DL
                               MaxNrTimeslots,
   minimumSpreadingFactor-DL
                               MinimumSpreadingFactor,
   maxNrDLPhysicalchannels
                               MaxNrDLPhysicalchannels,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                  PRESENCE optional } |
     ID id-TDD-maxNrDLPhysicalchannels
                                      CRITICALITY ignore
                                                               EXTENSION MaxNrDLPhysicalchannelsTS
   { ID id-TDD-Support-8PSK
                                      CRITICALITY ignore
                                                               EXTENSION Support-8PSK
                                                                                                PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationList-RL-SetupRgstTDD
                                             ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }
UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
   UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   ul-TFCS
                            TFCS,
   tFCI-Coding
                            TFCI-Coding,
   ul-PunctureLimit
                               PunctureLimit,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD
                                                    CRITICALITY reject
                                                                         EXTENSION
                                                                                   TDD-TPC-UplinkStepSize-LCR
                                                                                                                PRESENCE optional },
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                             ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }
DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
```

```
DL-CCTrCH-InformationItem-RL-SetupRgstTDD ::= SEOUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
   dl-TFCS
                               TFCS,
   tFCI-Coding
                               TFCI-Coding,
    dl-PunctureLimit
                                    PunctureLimit,
                                   TDD-TPC-DownlinkStepSize,
    tdd-TPC-DownlinkStepSize
    cCTrCH-TPCList
                                   CCTrCH-TPCList-RL-SetupRgstTDD OPTIONAL,
                                    ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationItem-RL-SetupRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrofCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD
CCTrCH-TPCItem-RL-SetupRgstTDD ::= SEQUENCE {
    cCTrCH-ID
                                        CCTrCH-ID.
                                        ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-SetupRqstTDD ::= SEQUENCE
   rL-ID
                                RL-ID,
    c-ID
                                C-ID,
    frameOffset
                                FrameOffset,
                                SpecialBurstScheduling,
    specialBurstScheduling
    primaryCCPCH-RSCP
                                    PrimaryCCPCH-RSCP
                                                            OPTIONAL,
    dL-TimeSlot-ISCP
                                   DL-TimeSlot-ISCP-Info
                                                           OPTIONAL,
    --for 3.84Mcps TDD only
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD
                                                               CRITICALITY reject
                                                                                        EXTENSION
                                                                                                    DL-TimeSlot-ISCP-LCR-Information PRESENCE optional
     ID id-TSTD-Support-Indicator-RL-SetupRgstTDD
                                                               CRITICALITY ignore
                                                                                                                                     PRESENCE optional
                                                                                        EXTENSION
                                                                                                    TSTD-Support-Indicator
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info CRITICALITY ignore
                                                           EXTENSION RL-Specific-DCH-Info
                                                                                                PRESENCE optional }
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
     ID id-UL-Synchronisation-Parameters-LCR
                                                       CRITICALITY ignore
                                                                               EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                                              optional
                                                                                                                                  PRESENCE
    }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
```

```
RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                              CRITICALITY ignore
                                                                        EXTENSION Permanent-NAS-UE-Identity
                                                                                                          PRESENCE optional }
     ID id-HSDSCH-TDD-Information
                                                                        EXTENSION HSDSCH-TDD-Information
                                                                                                      PRESENCE optional } |
                                              CRITICALITY reject
    ID id-HSPDSCH-RL-ID
                                              CRITICALITY reject
                                                                        EXTENSION RL-ID
                                                                                                          PRESENCE conditional } |
   -- This IE shall be present if HS-DSCH Information IE is present.
   { ID id-PDSCH-RL-ID
                                CRITICALITY ignore
                                                         EXTENSION RL-ID
                                                                           PRESENCE optional }.
    *****************
-- RADIO LINK SETUP RESPONSE FDD
  ****************
RadioLinkSetupResponseFDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{RadioLinkSetupResponseFDD-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
                                                                                                              OPTIONAL.
RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                       CRITICALITY ignore TYPE D-RNTI
                                                                                      PRESENCE optional
     ID id-CN-PS-DomainIdentifier
                                       CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                        PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                                                                        PRESENCE optional
                                       CRITICALITY ignore TYPE CN-CS-DomainIdentifier
     ID id-RL-InformationResponseList-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseList-RL-SetupRspFDD PRESENCE mandatory
     ID id-UL-SIRTarget
                                       CRITICALITY ignore TYPE UL-SIR
                                                                                   PRESENCE optional } |
     ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                        PRESENCE optional },
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponseItemIEs-RL-
RL-InformationResponseList-RL-SetupRspFDD
SetupRspFDD } }
RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
   RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   rL-Set-ID
                                RL-Set-ID,
   uRA-Information
                                URA-Information
                                                  OPTIONAL,
   SΔT
                                SAI,
   qA-Cell
                                GA-Cell
                                           OPTIONAL,
   gA-AccessPointPosition
                                GA-AccessPointPosition
                                                         OPTIONAL,
   received-total-wide-band-power Received-total-wide-band-power,
   secondary-CCPCH-Info
                                Secondary-CCPCH-Info
                                                         OPTIONAL,
   dl-CodeInformation
                                FDD-DL-CodeInformation,
```

```
diversityIndication
                                    DiversityIndication-RL-SetupRspFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
   sSDT-SupportIndicator
                                    SSDT-SupportIndicator,
   maxUL-SIR
                                    UL-SIR,
   minUL-SIR
                                    UL-SIR,
   closedlooptimingadjustmentmode
                                    Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                    MaximumAllowedULTxPower,
    maximumDLTxPower
                                    DL-Power,
   minimumDLTxPower
                                    DL-Power,
   primaryScramblingCode
                                    PrimaryScramblingCode
                                                            OPTIONAL,
   uL-UARFCN
                                    UARFCN
                                                            OPTIONAL,
                                                            OPTIONAL,
   dL-UARFCN
                                    UARFCN
   primaryCPICH-Power
                                    PrimaryCPICH-Power,
   dSCHInformationResponse
                                    DSCH-InformationResponse-RL-SetupRspFDD OPTIONAL,
   neighbouring-UMTS-CellInformation Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
   pC-Preamble
                                    PC-Preamble,
    sRB-Delay
                                    SRB-Delay,
                                    ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
                                                                                                        PRESENCE optional } |
      ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION
                                                                            GA-CellAdditionalShapes
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                             EXTENSION
                                                                                             DL-PowerBalancing-ActivationIndicator
                                                                                                                                       PRESENCE
optional}|
                                                                             EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                          PRESENCE optional } |
      ID id-HSDSCH-FDD-Information-Response
                                                    CRITICALITY ignore
      ID id-TFCI-PC-SupportIndicator
                                                                            TFCI-PC-SupportIndicator
                                                                                                        PRESENCE optional } |
                                            CRITICALITY ignore EXTENSION
     ID id-HCS-Prio
                                CRITICALITY ignore EXTENSION
                                                                HCS-Prio
                                                                                 PRESENCE optional } |
     ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                            CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                             PRESENCE
optional },
    . . .
DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining
                                    Combining-RL-SetupRspFDD,
   nonCombiningOrFirstRL
                                    NonCombiningOrFirstRL-RL-SetupRspFDD
Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID
                                RL-ID.
                                ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                            CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                        PRESENCE optional },
    . . .
```

```
NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
   dCH-InformationResponse
                           DCH-InformationResponse,
   iE-Extensions
                           ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL.
NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseIE-RL-SetupRspFDD }}
DSCH-InformationResponseIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
   DSCH-FDD-InformationResponse PRESENCE mandatory }
RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-RNTI
                               CRITICALITY ignore
                                                       EXTENSION DSCH-RNTI
                                                                            PRESENCE optional }
   { ID id-HSDSCH-RNTI
                                                                                   PRESENCE optional },
                           CRITICALITY reject
                                                EXTENSION HSDSCH-RNTI
       **********************
-- RADIO LINK SETUP RESPONSE TDD
  ****************
RadioLinkSetupResponseTDD ::= SEQUENCE {
                                                       {{RadioLinkSetupResponseTDD-IEs}},
   protocolIEs
                               ProtocolIE-Container
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}
                                                                                                          OPTIONAL,
RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                               CRITICALITY ignore TYPE D-RNTI
                                                                            PRESENCE optional }
     ID id-CN-PS-DomainIdentifier
                                      CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                     PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                      CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                     PRESENCE optional
   -- Mandatory for 3.84Mcps TDD only
                                  CRITICALITY ignore TYPE UL-SIR
                                                                            PRESENCE mandatory } |
   { ID id-UL-SIRTarget
   { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                     PRESENCE optional },
   . . .
RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
   rL-ID
                           RL-ID,
   uRA-Information
                           URA-Information
                                             OPTIONAL,
   SAT
                           SAI,
                           GA-Cell
   gA-Cell
                                      OPTIONAL,
   gA-AccessPointPosition
                           GA-AccessPointPosition OPTIONAL,
```

```
ul-TimeSlot-ISCP-Info
                              UL-TimeSlot-ISCP-Info.
   maxUL-SIR
                              UL-SIR,
   minUL-SIR
                              UL-SIR.
   maximumAllowedULTxPower
                              MaximumAllowedULTxPower,
    maximumDLTxPower
                              DL-Power,
   minimumDLTxPower
                              DL-Power,
   uARFCNforNt
                              UARFCN
                                                  OPTIONAL,
    cellParameterID
                                                  OPTIONAL,
                              CellParameterID
    svncCase
                               SyncCase
                                                  OPTIONAL,
   sCH-TimeSlot
                               SCH-TimeSlot
                                                  OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
    sCTD-Indicator
                               SCTD-Indicator OPTIONAL,
   pCCPCH-Power
                               PCCPCH-Power,
    timingAdvanceApplied
                              TimingAdvanceApplied,
    alphaValue
                              AlphaValue,
                              UL-PhysCH-SF-Variation,
    ul-PhysCH-SF-Variation
    synchronisationConfiguration
                                      SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                      Secondary-CCPCH-Info-TDD
                                                                 OPTIONAL,
   ul-CCTrCHInformation
                                      UL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
   dl-CCTrCHInformation
                                      DL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
    dCH-InformationResponse
                                      DCH-InformationResponseList-RL-SetupRspTDD
                                                                                OPTIONAL.
                                      DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
   dsch-InformationResponse
   usch-InformationResponse
                                      USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
   neighbouring-UMTS-CellInformation
                                              Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
                                              Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION
                                                                         GA-CellAdditionalShapes
                                                                                                   PRESENCE optional }
     ID id-HSDSCH-TDD-Information-Response
                                              CRITICALITY ignore
                                                                     EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                  PRESENCE optional } |
     ID id-HCS-Prio
                              CRITICALITY ignore EXTENSION HCS-Prio
                                                                             PRESENCE optional }
                                                                                 PRESENCE conditional },
    { ID id-TimeSlot-RL-SetupRspTDD
                                      CRITICALITY ignore EXTENSION TimeSlot
    -- This IE shall be present if Sync Case IE is Casel. --
UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD
UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    CCTrCH-ID
                              CCTrCH-ID,
   ul-DPCH-Information
                                  UL-DPCH-InformationList-RL-SetupRspTDD
                                                                             OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
```

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```
UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD
                                                                CRITICALITY ignore
                                                                                      EXTENSION UL-SIR
                                                                                                         PRESENCE optional },
   . . .
UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD
                                                    CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
}
UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
                                 RepetitionLength,
   repetitionLength
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   uL-Timeslot-Information
                                 UL-Timeslot-Information,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   . . .
UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD
DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   dl-DPCH-Information
                                 DL-DPCH-InformationList-RL-SetupRspTDD
                                                                           OPTIONAL,
                                 ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                PRESENCE optional } | -- this is a DCH type
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD
                                                    CRITICALITY ignore
                                                                           EXTENSION DL-Power
CCTrCH power
                                                                                                PRESENCE optional }, -- this is a DCH type
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD
                                                    CRITICALITY ignore
                                                                           EXTENSION DL-Power
CCTrCH power
DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }
```

```
DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory
DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                   RepetitionPeriod,
   repetitionLength
                                   RepetitionLength,
   tDD-DPCHOffset
                                   TDD-DPCHOffset,
    dL-Timeslot-Information
                                   DL-Timeslot-Information,
    iE-Extensions
                                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}
DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}
DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD
                                                       CRITICALITY ignore TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD
DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID
                           DSCH-ID,
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                           BindingID OPTIONAL,
                          TransportLayerAddress
    transportLayerAddress
                                                  OPTIONAL,
    transportFormatManagement TransportFormatManagement,
    iE-Extensions
                           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
```

```
USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD
USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   usch-ID
                                USCH-ID,
   bindingID
                                BindingID OPTIONAL,
    transportLayerAddress
                                TransportLayerAddress
                                                        OPTIONAL,
    transportFormatManagement
                                TransportFormatManagement,
    iE-Extensions
                                ProtocolExtensionContainer { { USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL.
USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD
                                                        CRITICALITY ignore EXTENSION RL-LCR-InformationResponse-RL-SetupRspTDD
                                                                                                                                       PRESENCE
optional}
    -- Mandatory for 1.28Mcps TDD only
     ID id-HSDSCH-RNTI
                                CRITICALITY reject
                                                         EXTENSION HSDSCH-RNTI
                                                                                                 PRESENCE optional } |
     ID id-DSCH-RNTI
                                    CRITICALITY ignore
                                                                                         PRESENCE optional },
                                                                 EXTENSION DSCH-RNTI
RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
   uRA-Information
                                URA-Information,
    sAI
                                SAI.
    qA-Cell
                                GA-Cell
                                            OPTIONAL,
    qA-AccessPointPosition
                                GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-LCR-Info
                                UL-TimeSlot-ISCP-LCR-Info,
   maxUL-SIR
                                UL-SIR,
   minUL-SIR
                                UL-SIR,
    maximumAllowedULTxPower
                                MaximumAllowedULTxPower,
    maximumDLTxPower
                                DL-Power,
    minimumDLTxPower
                                DL-Power,
   uARFCNforNt
                                UARFCN
                                                         OPTIONAL,
    cellParameterID
                                CellParameterID
                                                         OPTIONAL,
    sCTD-Indicator
                        SCTD-Indicator OPTIONAL,
   pCCPCH-Power
                                PCCPCH-Power,
   alphaValue
                                AlphaValue,
                                UL-PhysCH-SF-Variation,
    ul-PhysCH-SF-Variation
                                            SynchronisationConfiguration,
    synchronisationConfiguration
    secondary-LCR-CCPCH-Info-TDD
                                            Secondary-LCR-CCPCH-Info-TDD
                                                                                             OPTIONAL,
   ul-LCR-CCTrCHInformation
                                            UL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
   dl-LCR-CCTrCHInformation
                                            DL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
   dCH-InformationResponse
                                            DCH-InformationResponseList-RL-SetupRspTDD
                                                                                             OPTIONAL,
   dsch-LCR-InformationResponse
                                            DSCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                             OPTIONAL.
   usch-LCR-InformationResponse
                                            USCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                             OPTIONAL,
   neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation
                                                                                             OPTIONAL,
```

```
neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation
                                                                                            OPTIONAL.
   iE-Extensions
                                            ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
                                                                                                                                      OPTIONAL,
    . . .
RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                                    CRITICALITY ignore EXTENSION
                                                                                    GA-CellAdditionalShapes
                                                                                                                 PRESENCE optional }
     ID id-HCS-Prio
                                                    CRITICALITY ignore EXTENSION
                                                                                    HCS-Prio
                                                                                                                 PRESENCE optional }
     ID id-HSDSCH-TDD-Information-Response-LCR
                                                    CRITICALITY ignore EXTENSION HSDSCH-TDD-Information-Response PRESENCE optional |
    { ID id-UL-TimingAdvanceCtrl-LCR
                                                    CRITICALITY ignore EXTENSION
                                                                                    UL-TimingAdvanceCtrl-LCR
                                                                                                                 PRESENCE optional },
    --Mandatory for 1.28Mcps TDD only
    . . .
UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                      PRESENCE mandatory
UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    ul-DPCH-LCR-Information
                                UL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                                OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
                                                                        CRITICALITY ignore
                                                                                                                    PRESENCE optional },
                                                                                                EXTENSION UL-SIR
    . . .
UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
                                    RepetitionPeriod,
    repetitionPeriod
    repetitionLength
                                    RepetitionLength,
                                    TDD-DPCHOffset,
    tDD-DPCHOffset
    uL-TimeslotLCR-Information
                                    UL-TimeslotLCR-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
   DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   dl-DPCH-LCR-Information
                             DL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                          OPTIONAL,
   iE-Extensions
                             ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                     CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   dL-Timeslot-LCR-Information
                                 DL-TimeslotLCR-Information,
   tSTD-Indicator
                                 TSTD-Indicator,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}
DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                       CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD
DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
```

```
dsch-ID
                          DSCH-ID.
   dSCH-FlowControlInformation
                                  DSCH-FlowControlInformation,
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress
                          TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
                          ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}
USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                         CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEOUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD
USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   usch-ID
                              USCH-ID,
   bindingID
                              BindingID OPTIONAL,
   transportLayerAddress
                              TransportLayerAddress
                                                     OPTIONAL,
    transportFormatManagement
                              TransportFormatManagement,
                              ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   *****************
-- RADIO LINK SETUP FAILURE FDD
__ ********************
RadioLinkSetupFailureFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkSetupFailureFDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}
                                                                                                                    OPTIONAL,
   protocolExtensions
RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                PRESENCE optional } |
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                              PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                              PRESENCE optional }
     ID id-CauseLevel-RL-SetupFailureFDD
                                                     CRITICALITY ignore
                                                                           TYPE CauseLevel-RL-SetupFailureFDD
                                                                                                                  PRESENCE mandatory } |
```

```
ID id-UL-SIRTarget
                                                                                         PRESENCE optional }
                                        CRITICALITY ignore TYPE UL-SIR
    { ID id-CriticalityDiagnostics
                                            CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                   PRESENCE optional },
    . . .
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause
                        GeneralCauseList-RL-SetupFailureFDD,
                        RLSpecificCauseList-RL-SetupFailureFDD,
    rLSpecificCause
GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE
    iE-Extensions
                                                ProtocolExtensionContainer { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }
                                                                                                                                OPTIONAL,
    . . .
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD
                                                                UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD
                                                                SuccessfulRL-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }
    iE-Extensions
    . . .
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-DSCH-RNTI
                                CRITICALITY ignore
                                                        EXTENSION DSCH-RNTI
                                                                                                 PRESENCE optional } |
      ID id-HSDSCH-RNTI
                                CRITICALITY reject
                                                        EXTENSION HSDSCH-RNTI
                                                                                                 PRESENCE optional },
UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                        CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory }
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
                                RL-ID,
    rL-ID
    cause
                                Cause,
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Successful RL-Information Response List-RL-Setup Failure FDD ::= SEOUENCE (SIZE (0...maxNrOfRLs-1)) OF Protocol IE-Single-Container { {Successful RL-
InformationResponse-RL-SetupFailureFDD-IEs}
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                   CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
   rL-ID
                                           RL-ID.
   rL-Set-ID
                                           RL-Set-ID,
   uRA-Information
                                           URA-Information
                                                               OPTIONAL.
   sAI
                                           SAI,
   qA-Cell
                                           GA-Cell
                                                       OPTIONAL.
   gA-AccessPointPosition
                                           GA-AccessPointPosition
                                                                       OPTIONAL,
   received-total-wide-band-power
                                                                   Received-total-wide-band-power,
    secondary-CCPCH-Info
                                           Secondary-CCPCH-Info
                                                                       OPTIONAL,
   dl-CodeInformation
                                           FDD-DL-CodeInformation,
   diversityIndication
                                           DiversityIndication-RL-SetupFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator
                                           SSDT-SupportIndicator,
    maxUL-SIR
                                           UL-SIR,
   minUL-SIR
                                           UL-SIR,
   closedlooptimingadjustmentmode
                                           Closedlooptimingadjustmentmode OPTIONAL,
                                           MaximumAllowedULTxPower,
    maximumAllowedULTxPower
    maximumDLTxPower
                                           DL-Power,
   minimumDLTxPower
                                           DL-Power,
   primaryCPICH-Power
                                           PrimaryCPICH-Power,
   primaryScramblingCode
                                           PrimaryScramblingCode
                                                                  OPTIONAL,
   uL-UARFCN
                                                   UARFCN
                                                               OPTIONAL,
                                                               OPTIONAL,
   dL-UARFCN
                                                   UARFCN
   dSCH-InformationResponse-RL-SetupFailureFDD
                                                   DSCH-InformationResponseList-RL-SetupFailureFDD
                                                                                                      OPTIONAL,
   neighbouring-UMTS-CellInformation
                                           Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
                                           Neighbouring-GSM-CellInformation OPTIONAL,
   pC-Preamble
                                           PC-Preamble,
    sRB-Delay
                                           SRB-Delay,
    iE-Extensions
                                           ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                           CRITICALITY ignore EXTENSION
                                                                          GA-CellAdditionalShapes
                                                                                                      PRESENCE optional } |
    EXTENSION
                                                                                          DL-PowerBalancing-ActivationIndicator
                                                                                                                                   PRESENCE
optional}|
     ID id-HSDSCH-FDD-Information-Response
                                                   CRITICALITY ignore
                                                                           EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                       PRESENCE optional |
     ID id-TFCI-PC-SupportIndicator
                                           CRITICALITY ignore EXTENSION
                                                                          TFCI-PC-SupportIndicator
                                                                                                      PRESENCE optional } |
     ID id-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                               PRESENCE optional } |
```

```
{ ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                     CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                           PRESENCE
optional },
   . . .
DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
   combining
                                Combining-RL-SetupFailureFDD,
   nonCombiningOrFirstRL
                            NonCombiningOrFirstRL-RL-SetupFailureFDD
Combining-RL-SetupFailureFDD ::= SEQUENCE {
   iE-Extensions
                            ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   . . .
CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DCH-InformationResponse
                                       CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                            PRESENCE optional },
   . . .
NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                                       DCH-InformationResponse,
                                       ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupFailureFDD }}
DSCH-InformationResponseListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK SETUP FAILURE TDD
  *****************
RadioLinkSetupFailureTDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                        {{RadioLinkSetupFailureTDD-IEs}},
                                ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL
```

```
RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-SetupFailureTDD CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureTDD
                                                                                                  PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
                      GeneralCauseList-RL-SetupFailureTDD,
   generalCause
                      RLSpecificCauseList-RL-SetupFailureTDD,
   rLSpecificCause
    . . .
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
   cause
                              ProtocolExtensionContainer { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }
   iE-Extensions
                                                                                                           OPTIONAL,
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions
                                                         . . .
RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD} }
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
          id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD
                                                                        CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD
                   PRESENCE
                              mandatory
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   cause
                              Cause,
                                  ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     -- RADIO LINK ADDITION REQUEST FDD
RadioLinkAdditionRequestFDD ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                     {{RadioLinkAdditionRequestFDD-IEs}},
   protocolExtensions
                              ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}
                                                                                                         OPTIONAL,
RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-UL-SIRTarget
                                 CRITICALITY reject TYPE UL-SIR
                                                                          PRESENCE mandatory }
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
RL-InformationList-RL-AdditionRgstFDD
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRgstFDD-IEs} }
RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
   RL-Information-RL-AdditionRqstFDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   c-ID
                              C-ID,
   frameOffset
                              FrameOffset,
   chipOffset
                              ChipOffset,
   diversityControlField
                              DiversityControlField,
                              PrimaryCPICH-EcNo
                                                  OPTIONAL,
   primaryCPICH-EcNo
   sSDT-CellID
                              SSDT-CellID
                                               OPTIONAL,
   transmitDiversityIndicator
                              TransmitDiversityIndicator
                                                         OPTIONAL,
                              ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DLReferencePower
                          CRITICALITY ignore
                                               EXTENSION DL-Power
                                                                       PRESENCE optional |
     ID id-Enhanced-PrimaryCPICH-EcNo
                                            CRITICALITY ignore
                                                                   EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                      PRESENCE optional } |
    ID id-RL-Specific-DCH-Info
                                 CRITICALITY ignore
                                                      EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                            optional }|
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
   { ID id-Qth-Parameter CRITICALITY ignore
                                                                       PRESENCE optional },
                                           EXTENSION Qth-Parameter
```

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```
RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DPC-Mode
                                  CRITICALITY reject
                                                         EXTENSION
                                                                    DPC-Mode
                                                                                   PRESENCE optional } |
    { ID id-Permanent-NAS-UE-Identity
                                                 CRITICALITY ignore
                                                                            EXTENSION Permanent-NAS-UE-Identity
                                                                                                                PRESENCE optional },
     -- RADIO LINK ADDITION REQUEST TDD
__ *******************
RadioLinkAdditionRequestTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkAdditionRequestTDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL,
RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstTDD CRITICALITY reject TYPE RL-Information-RL-AdditionRqstTDD
                                                                                                        PRESENCE mandatory },
RL-Information-RL-AdditionRgstTDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   c-ID
                                  C-ID,
    frameOffset
                                  FrameOffset,
   diversityControlField
                                  DiversityControlField,
    primaryCCPCH-RSCP
                                  PrimaryCCPCH-RSCP
                                                         OPTIONAL,
                                  DL-TimeSlot-ISCP-Info
   dL-TimeSlot-ISCP-Info
                                                        OPTIONAL,
    --for 3.84Mcps TDD only
                                  ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD CRITICALITY reject
                                                                                   EXTENSION
                                                                                               DL-TimeSlot-ISCP-LCR-Information
                                                                                                                                 PRESENCE
optional
    --for 1.28Mcps TDD only
                                                            EXTENSION RL-Specific-DCH-Info PRESENCE
    { ID id-RL-Specific-DCH-Info
                                     CRITICALITY ignore
                                                                                                        optional }|
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
     ID id-UL-Synchronisation-Parameters-LCR
                                                     CRITICALITY ignore
                                                                            EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                            PRESENCE
                                                                                                                                       optional
    }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity
                                                                                                                PRESENCE optional } |
                                                 CRITICALITY ignore
                                                                            EXTENSION Permanent-NAS-UE-Identity
```

```
{ ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                                     CRITICALITY notify EXTENSION UL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE
optional
   { ID id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD
                                                     CRITICALITY notify EXTENSION DL-CCTrCH-InformationList-RL-AdditionRgstTDD PRESENCE
optional
         },
   . . .
UL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-InformationItemIEs-
RL-AdditionRgstTDD} }
UL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   uplinkStepSizeLCR
                            TDD-TPC-UplinkStepSize-LCR
                                                      OPTIONAL,
   -- Applicable to 1.28Mcps TDD only
                            ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-InformationItemIEs-
RL-AdditionRqstTDD} }
DL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DL-CCTrCH-InformationItem-RL-AdditionRgstTDD
                                                    CRITICALITY notify TYPE DL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE optional },
   . . .
DL-CCTrCH-InformationItem-RL-AdditionRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   downlinkStepSize
                            TDD-TPC-DownlinkStepSize OPTIONAL,
                            ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
__ ********************
-- RADIO LINK ADDITION RESPONSE FDD
__ **********************
```

```
RadioLinkAdditionResponseFDD ::= SEQUENCE {
   protocolIEs
                                    ProtocolIE-Container
                                                                {{RadioLinkAdditionResponseFDD-IEs}},
   protocolExtensions
                                    ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}
                                                                                                                              OPTIONAL,
    . . .
RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseList-RL-AdditionRspFDD
                                                            CRITICALITY ignore TYPE RL-InformationResponseList-RL-AdditionRspFDD
                                                                                                                                      PRESENCE mandatory
    { ID id-CriticalityDiagnostics
                                            CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                   PRESENCE optional },
    . . .
RL-InformationResponseList-RL-AdditionRspFDD
                                                    ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }
RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD
                                                                CRITICALITY ignore TYPE RL-InformationResponseItem-RL-AdditionRspFDD
                                                                                                                                         PRESENCE
mandatory }
RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                                    RL-ID,
   rL-Set-ID
                                    RL-Set-ID.
   uRA-Information
                                    URA-Information
                                                        OPTIONAL,
    sAI
                                    SAI,
                                    GA-Cell
    qA-Cell
                                                OPTIONAL,
                                    GA-AccessPointPosition OPTIONAL,
   gA-AccessPointPosition
    received-total-wide-band-power Received-total-wide-band-power,
    secondary-CCPCH-Info
                                    Secondary-CCPCH-Info
                                                                OPTIONAL,
   dl-CodeInformation
                                    DL-CodeInformationList-RL-AdditionRspFDD,
   diversityIndication
                                    DiversityIndication-RL-AdditionRspFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator
                                        SSDT-SupportIndicator,
   minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
   closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power,
   minimumDLTxPower
                                        DL-Power,
   neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
                                        Neighbouring-GSM-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
   pC-Preamble
                                        PC-Preamble,
    sRB-Delay
                                        SRB-Delay,
   primaryCPICH-Power
                                        PrimaryCPICH-Power,
    iE-Extensions
                                        ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
```

```
RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                   PRESENCE optional } |
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                         EXTENSION
                                                                                         DL-PowerBalancing-ActivationIndicator
                                                                                                                                PRESENCE
optional}|
     ID id-TFCI-PC-SupportIndicator
                                          CRITICALITY ignore EXTENSION TFCI-PC-SupportIndicator
                                                                                                    PRESENCE optional } |
    ID id-HCS-Prio
                              CRITICALITY ignore EXTENSION HCS-Prio
                                                                             PRESENCE optional } |
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                         CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                      PRESENCE
optional },
    . . .
DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}
DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                     PRESENCE mandatory }
DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
                                  Combining-RL-AdditionRspFDD,
    combining
   nonCombining
                                  NonCombining-RL-AdditionRspFDD
Combining-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                          CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                    PRESENCE optional },
NonCombining-RL-AdditionRspFDD ::= SEQUENCE
   dCH-InformationResponse
                                          DCH-InformationResponse,
                                              ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK ADDITION RESPONSE TDD
```

```
__ ********************
RadioLinkAdditionResponseTDD ::= SEOUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                               {{RadioLinkAdditionResponseTDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}
                                                                                                                            OPTIONAL,
RadioLinkAdditionResponseTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD
                                                           CRITICALITY ignore TYPE RL-InformationResponse-RL-AdditionRspTDD PRESENCE optional }
    --Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                 PRESENCE optional },
    . . .
RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID
                                       RL-ID,
   uRA-Information
                                       URA-Information
                                                           OPTIONAL,
    sAI
                                       SAI,
    gA-Cell
                                       GA-Cell
                                                   OPTIONAL,
    qA-AccessPointPosition
                                       GA-AccessPointPosition OPTIONAL.
    ul-TimeSlot-ISCP-Info
                                       UL-TimeSlot-ISCP-Info,
    minUL-SIR
                                       UL-SIR,
    maxUL-SIR
                                       UL-SIR,
    maximumAllowedULTxPower
                                       MaximumAllowedULTxPower,
    maximumDLTxPower
                                       DL-Power,
    minimumDLTxPower
                                       DL-Power,
    pCCPCH-Power
                                       PCCPCH-Power,
    timingAdvanceApplied
                                       TimingAdvanceApplied,
    alphaValue
                                       AlphaValue,
    ul-PhysCH-SF-Variation
                                       UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                       SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                       Secondary-CCPCH-Info-TDD
                                                                                       OPTIONAL,
    ul-CCTrCHInformation
                                       UL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    dl-CCTrCHInformation
                                       DL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    dCH-Information
                                       DCH-Information-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    dSCH-InformationResponse
                                       DSCH-InformationResponse-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    uSCH-InformationResponse
                                       USCH-InformationResponse-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    neighbouring-UMTS-CellInformation
                                       Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                       Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions
                                       ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
RL-InformationResponse-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                       PRESENCE optional } |
     ID id-GA-CellAdditionalShapes
                                           CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
    { ID id-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                               PRESENCE optional },
    . . .
UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
```

```
UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD
                                                                                                                                     PRESENCE mandatory
UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD
UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
   ul-DPCH-Information
                                    UL-DPCH-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    uL-Timeslot-Information
                                    UL-Timeslot-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-AdditionRspTDD ::= Protocolie-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD
                                                                                                                                      PRESENCE mandatory
DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD
DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    dl-DPCH-Information
                                    DL-DPCH-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
```

```
DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD
                                                            CRITICALITY ignore
                                                                                    EXTENSION DL-Power
                                                                                                            PRESENCE optional \ -- this is a DCH type
CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD
                                                            CRITICALITY ignore
                                                                                    EXTENSION DL-Power
                                                                                                            PRESENCE optional }, -- this is a DCH type
CCTrCH power
    . . .
DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    dL-Timeslot-Information
                                    DL-Timeslot-Information,
                                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication
                                        DiversityIndication-RL-AdditionRspTDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
                                    ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining
                    Combining-RL-AdditionRspTDD,
    nonCombining
                   NonCombining-RL-AdditionRspTDD
Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID
                                ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
```

```
CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                         CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                  PRESENCE optional },
    . . .
NonCombining-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InformationResponse
                              DCH-InformationResponse,
                                  ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}
DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD
                                                     CRITICALITY ignore TYPE DSCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                      PRESENCE mandatory }
DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD
DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID
                          DSCH-ID,
    transportFormatManagement TransportFormatManagement,
                                  DSCH-FlowControlInformation,
   dSCH-FlowControlInformation
   diversityIndication
                          DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
                          iE-Extensions
    . . .
DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
                          ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
   iE-Extensions
DiversityIndication-RL-AdditionRspTDD2-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}
```

```
USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD
                                                      CRITICALITY ignore TYPE USCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                         PRESENCE mandatory }
USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD
USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   uSCH-ID
                           USCH-ID,
    transportFormatManagement TransportFormatManagement,
   diversityIndication
                           DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
   iE-Extensions
                           ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD
                                                          CRITICALITY ignore
                                                                                  EXTENSION
                                                                                             RL-LCR-InformationResponse-RL-AdditionRspTDD
    PRESENCE optional },
    --Mandatory for 1.28Mcps TDD only
RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                               RL-ID,
   uRA-Information
                               URA-Information,
   sAI
                               SAI,
    qA-Cell
                               GA-Cell
                                           OPTIONAL,
    gA-AccessPointPosition
                               GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-LCR-Info
                               UL-TimeSlot-ISCP-LCR-Info,
   maxUL-SIR
                               UL-SIR,
   minUL-SIR
                               UL-SIR,
   pCCPCH-Power
                               PCCPCH-Power,
    maximumAllowedULTxPower
                               MaximumAllowedULTxPower,
    maximumDLTxPower
                               DL-Power,
   minimumDLTxPower
                               DL-Power,
    alphaValue
                               AlphaValue,
   ul-PhysCH-SF-Variation
                               UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                       SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                       Secondary-LCR-CCPCH-Info-TDD
                                                                                         OPTIONAL,
   ul-CCTrCH-LCR-Information
                                       UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
    dl-CCTrCH-LCR-Information
                                       DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
   dCH-InformationResponse
                                       DCH-InformationResponseList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
    dsch-LCR-InformationResponse
                                       DSCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                         OPTIONAL,
   usch-LCR-InformationResponse
                                           USCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                            OPTIONAL,
   neighbouring-UMTS-CellInformation
                                              Neighbouring-UMTS-CellInformation
                                                                                             OPTIONAL,
   neighbouring-GSM-CellInformation
                                              Neighbouring-GSM-CellInformation
                                                                                           OPTIONAL,
    iE-Extensions
                                              OPTIONAL.
```

```
RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                     CRITICALITY ignore EXTENSION
                                                                   GA-CellAdditionalShapes
                                                                                              PRESENCE optional } |
     ID id-HCS-Prio
                                                                                              PRESENCE optional }
                                     CRITICALITY ignore EXTENSION
                                                                   HCS-Prio
    ID id-UL-TimingAdvanceCtrl-LCR
                                     CRITICALITY ignore EXTENSION
                                                                   UL-TimingAdvanceCtrl-LCR
                                                                                              PRESENCE optional },
   --Mandatory for 1.28Mcps TDD only
UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}
UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   ul-DPCH-LCR-Information
                                     UL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                      OPTIONAL.
                                 ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   uL-TimeslotLCR-Information
                                 UL-TimeslotLCR-Information,
                                 ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   dl-DPCH-LCR-Information
                            DL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                           OPTIONAL,
   iE-Extensions
                            ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   . . .
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                         CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod,
   repetitionLength
                                RepetitionLength,
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   dL-TimeslotLCR-Information
                                DL-TimeslotLCR-Information,
   tSTD-Indicator
                                TSTD-Indicator,
                                ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}
DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}
DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                          CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD
DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   dsch-ID
                         DSCH-ID,
   dSCH-FlowControlInformation
                                DSCH-FlowControlInformation,
   bindingID
                         BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
   transportFormatManagement TransportFormatManagement,
                         iE-Extensions
   . . .
DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}
USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                          CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEOUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD
USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   usch-ID
                             USCH-ID,
                            TransportFormatManagement,
   transportFormatManagement
   diversityIndication
                             DiversityIndication-RL-AdditionRspTDD2
                             ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RADIO LINK ADDITION FAILURE FDD
  *****************
RadioLinkAdditionFailureFDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                          {{RadioLinkAdditionFailureFDD-IEs}},
                                ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}
   protocolExtensions
                                                                                                                 OPTIONAL,
```

```
RadioLinkAdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD
                                                                CRITICALITY
                                                                                 ignore
                                                                                                  TYPE CauseLevel-RL-AdditionFailureFDD
    PRESENCE
                mandatory } |
    { ID id-CriticalityDiagnostics
                                                                                                  PRESENCE optional },
                                            CRITICALITY ignore TYPE CriticalityDiagnostics
    . . .
CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause
                        GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause
                        RLSpecificCauseList-RL-AdditionFailureFDD,
GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause
                                                ProtocolExtensionContainer { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }
    iE-Extensions
                                                                                                                                      OPTIONAL,
    . . .
GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                         OPTIONAL,
RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                       CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD
                        PRESENCE mandatory }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID
                                    RL-ID,
    cause
                                    Cause,
    iE-Extensions
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
```

```
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Successful RL-Information Response List-RL-Addition Failure FDD ::= SEOUENCE (SIZE (0...maxNrOfRLs-2)) OF Protocol IE-Single-Container { Successful RL-
InformationResponse-RL-AdditionFailureFDD-IEs} }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                        CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
        PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEOUENCE {
   rL-ID
                                        RL-ID,
    rL-Set-ID
                                        RL-Set-ID,
    uRA-Information
                                        URA-Information
                                                            OPTIONAL,
    sAI
                                        SAI,
    qA-Cell
                                        GA-Cell
                                                    OPTIONAL.
    gA-AccessPointPosition
                                        GA-AccessPointPosition
                                                                     OPTIONAL,
                                        Received-total-wide-band-power,
    received-total-wide-band-power
    secondary-CCPCH-Info
                                        Secondary-CCPCH-Info
                                                                     OPTIONAL.
    dl-CodeInformation
                                        DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication
                                        DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator
                                        SSDT-SupportIndicator,
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
    closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power,
    minimumDLTxPower
                                        DL-Power.
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
                                        Neighbouring-GSM-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
    primaryCPICH-Power
                                        PrimaryCPICH-Power,
    pC-Preamble
                                        PC-Preamble,
    sRB-Delay
                                        SRB-Delay,
    iE-Extensions
                                        ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-GA-CellAdditionalShapes
                                                                                    GA-CellAdditionalShapes
                                                                                                                 PRESENCE optional } |
                                                    CRITICALITY ignore EXTENSION
      ID id-DL-PowerBalancing-ActivationIndicator
                                                    CRITICALITY ignore EXTENSION
                                                                                    DL-PowerBalancing-ActivationIndicator PRESENCE optional |
      ID id-TFCI-PC-SupportIndicator
                                                                                    TFCI-PC-SupportIndicator
                                                                                                                 PRESENCE optional } |
                                                    CRITICALITY ignore EXTENSION
      ID id-HCS-Prio
                                                    CRITICALITY ignore EXTENSION
                                                                                    HCS-Prio
                                                                                                   PRESENCE optional } |
     ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                            CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                             PRESENCE
optional },
```

```
DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}
DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                              PRESENCE mandatory }
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
   combining
                                Combining-RL-AdditionFailureFDD,
   nonCombining
                                NonCombining-RL-AdditionFailureFDD
Combining-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
   iE-Extensions
                            ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DCH-InformationResponse
                                                                                            PRESENCE optional },
                                       CRITICALITY ignore EXTENSION DCH-InformationResponse
NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                            DCH-InformationResponse,
                                          ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    **********************
-- RADIO LINK ADDITION FAILURE TDD
__ *********************
RadioLinkAdditionFailureTDD ::= SEQUENCE {
                                                        {{RadioLinkAdditionFailureTDD-IEs}},
   protocolIEs
                               ProtocolIE-Container
                                ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}
                                                                                                              OPTIONAL,
   protocolExtensions
RadioLinkAdditionFailureTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
```

```
CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
   generalCause
                     GeneralCauseList-RL-AdditionFailureTDD,
                     RLSpecificCauseList-RL-AdditionFailureTDD,
   rLSpecificCause
   . . .
GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
   cause
                             Cause,
   iE-Extensions
                             ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }
                                                                                                          OPTIONAL,
GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD
                                                           Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
                                                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
   . . .
RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
AdditionFailureTDD} }
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
         id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD
                                                                     CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD PRESENCE mandatory}
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
   rL-ID
                             RL-ID,
   cause
   iE-Extensions
                             ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
    . . .
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
*****************
-- RADIO LINK DELETION REQUEST
  *****************
RadioLinkDeletionRequest ::= SEQUENCE {
   protocolIEs
                             ProtocolIE-Container
                                                   {{RadioLinkDeletionRequest-IEs}},
                             ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}
   protocolExtensions
                                                                                                  OPTIONAL,
   . . .
RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory },
   . . .
                                   ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRqst-IEs} }
RL-InformationList-RL-DeletionRqst
RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-DeletionRqst
                                      CRITICALITY notify TYPE RL-Information-RL-DeletionRqst
                                                                                     PRESENCE mandatory
RL-Information-RL-DeletionRqst ::= SEQUENCE {
   rL-ID
                          ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   -- RADIO LINK DELETION RESPONSE
    *****************
RadioLinkDeletionResponse ::= SEQUENCE {
   protocolIEs
                             ProtocolIE-Container
                                                   {{RadioLinkDeletionResponse-IEs}},
   protocolExtensions
                             ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}
                                                                                                   OPTIONAL,
```

```
RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
   . . .
RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  RADIO LINK RECONFIGURATION PREPARE FDD
   RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
                                                              {{RadioLinkReconfigurationPrepareFDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
   protocolExtensions
                                                                                                                                OPTIONAL,
   . . .
RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedOueuingTime
                                                                                             PRESENCE optional } |
                                      CRITICALITY reject TYPE AllowedQueuingTime
     ID id-UL-DPCH-Information-RL-ReconfPrepFDD
                                                          CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                            PRESENCE optional
     ID id-DL-DPCH-Information-RL-ReconfPrepFDD
                                                          CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                            PRESENCE optional }
     ID id-FDD-DCHs-to-Modify
                                   CRITICALITY reject TYPE FDD-DCHs-to-Modify
                                                                                  PRESENCE optional
     ID id-DCHs-to-Add-FDD
                               CRITICALITY reject TYPE DCH-FDD-Information
                                                                                  PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepFDD
                                                                                                           PRESENCE optional } |
     ID id-DSCH-Modify-RL-ReconfPrepFDD
                                                                                                        PRESENCE optional }
                                              CRITICALITY reject TYPE DSCH-Modify-RL-ReconfPrepFDD
     ID id-DSCHs-to-Add-FDD
                                       CRITICALITY reject TYPE DSCH-FDD-Information
                                                                                             PRESENCE optional } |
     ID id-DSCH-Delete-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DSCH-Delete-RL-ReconfPrepFDD
                                                                                                        PRESENCE optional }
     ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject TYPE RL-InformationList-RL-ReconfPrepFDD PRESENCE optional }
     ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional },
UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
   ul-ScramblingCode
                                   UL-ScramblingCode
                                                          OPTIONAL,
   ul-SIRTarget
                                   UL-SIR
                                                          OPTIONAL,
   minUL-ChannelisationCodeLength MinUL-ChannelisationCodeLength OPTIONAL,
   maxNrOfUL-DPDCHs
                                   MaxNrOfUL-DPCHs
                                                          OPTIONAL
   -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
   ul-PunctureLimit
                                   PunctureLimit
                                                          OPTIONAL,
   t.FCS
                                   TFCS
                                          OPTIONAL,
   ul-DPCCH-SlotFormat
                                   UL-DPCCH-SlotFormat
                                                          OPTIONAL,
   diversityMode
                                   DiversityMode
                                                          OPTIONAL,
   sSDT-CellIDLength
                                   SSDT-CellID-Length
                                                          OPTIONAL,
   s-FieldLength
                                   S-FieldLength
                                                          OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
```

```
UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
   t FCS
                                  TFCS
                                        OPTIONAL,
   dl-DPCH-SlotFormat
                                  DL-DPCH-SlotFormat
                                                        OPTIONAL,
   nrOfDLchannelisationcodes
                                 NrOfDLchannelisationcodes OPTIONAL,
   tFCI-SignallingMode
                                 TFCI-SignallingMode
                                                        OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
                                                        OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
   multiplexingPosition
                                 MultiplexingPosition
                                                            OPTIONAL,
   limitedPowerIncrease
                                 LimitedPowerIncrease
                                                            OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-SplitType CRITICALITY reject EXTENSION SplitType PRESENCE optional }
    DCH-DeleteList-RL-ReconfPrepFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD
DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   dCH-ID
                                  DCH-ID.
   iE-Extensions
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
   dSCH-Information
                                     DSCH-ModifyInfo-RL-ReconfPrepFDD
                                                                       OPTIONAL,
   pdSCH-RL-ID
                                     RL-ID
                                                                OPTIONAL,
   tFCS
                                     TFCS
                                                                OPTIONAL,
                                     ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-Modify-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                         CRITICALITY ignore EXTENSION EnhancedDSCHPCIndicator PRESENCE optional |
     ID id-EnhancedDSCHPCIndicator
    { ID id-EnhancedDSCHPC
                                         CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                            PRESENCE conditional },
    -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
```

```
DSCH-ModifyInfo-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyInformationItem-RL-ReconfPrepFDD
DSCH-ModifyInformationItem-RL-ReconfPrepFDD ::= SEOUENCE {
   dSCH-ID
                                        DSCH-ID.
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                         OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
                                                                         OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    . . .
DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                                                                     optional } |
                                                                    EXTENSION
                                                                                BindingID
                                                                                                 PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                            PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-Delete-RL-ReconfPrepFDD ::= SEQUENCE
    dSCH-Information
                                        DSCH-Info-Delete-RL-ReconfPrepFDD,
   iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-Delete-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DSCH-Delete-RL-ReconfPrepFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Info-Delete-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-DeleteInformationItem-RL-REconfPrepFDD
DSCH-DeleteInformationItem-RL-REconfPrepFDD ::= SEQUENCE {
   dSCH-ID
                                        DSCH-ID,
                                    ProtocolExtensionContainer { {DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-ReconfPrepFDD-IEs}
RL-InformationList-RL-ReconfPrepFDD
RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD
                                                CRITICALITY reject TYPE RL-Information-RL-ReconfPrepFDD
                                                                                                              PRESENCE mandatory }
```

```
RL-Information-RL-ReconfPrepFDD ::= SEOUENCE {
   rL-ID
                             RL-ID,
   sSDT-Indication
                                SSDT-Indication
                                                   OPTIONAL,
   sSDT-CellIdentity
                                SSDT-CellID
                                               OPTIONAL
   -- The IE shall be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
   transmitDiversitvIndicator
                                TransmitDiversitvIndicator
                                                              OPTIONAL,
   -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL.
RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-SSDT-CellIDforEDSCHPC
                                            CRITICALITY ignore EXTENSION SSDT-CellID
                                                                                         PRESENCE conditional } |
   -- This IE shall be present if Enhanced DSCH PC IE is present in either the DSCHs to Modify IE or the DSCHs to Add IE.
   { ID id-DLReferencePower
                                            CRITICALITY ignore EXTENSION DL-Power
                                                                                            PRESENCE optional }
     ID id-RL-Specific-DCH-Info
                                            CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE optional }
     ID id-DL-DPCH-TimingAdjustment
                                            CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment PRESENCE optional }
                                            CRITICALITY ignore EXTENSION Qth-Parameter
     ID id-Qth-Parameter
                                                                                         PRESENCE optional }
    { ID id-Phase-Reference-Update-Indicator
                                            CRITICALITY ignore EXTENSION Phase-Reference-Update-Indicator PRESENCE optional },
   . . .
RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-Information-to-Modify
                                                          CRITICALITY reject EXTENSION HSDSCH-Information-to-Modify PRESENCE optional
     ID id-HSDSCH-FDD-Information-to-Add
                                                          CRITICALITY reject EXTENSION HSDSCH-FDD-Information
                                                                                                                  PRESENCE optional }
     ID id-HSDSCH-FDD-Information-to-Delete
                                                          CRITICALITY reject EXTENSION HSDSCH-DeleteList-RL-ReconfPrepFDD PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                                          CRITICALITY reject EXTENSION RL-ID PRESENCE optional | |
     ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
   PRESENCE optional | |
   Channel-Estimation-Of-HS-DSCH PRESENCE optional },
   . . .
HSDSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepFDD
HSDSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                               HSDSCH-MACdFlow-ID,
   iE-Extensions
                                               ProtocolExtensionContainer { { HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }
HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK RECONFIGURATION PREPARE TDD
```

__ **********************

```
RadioLinkReconfigurationPrepareTDD ::= SEOUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                               {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}
                                                                                                                                  OPTIONAL,
RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedOueuingTime
                                       CRITICALITY reject TYPE AllowedQueuingTime
                                                                                               PRESENCE optional } |
                                                           CRITICALITY notify TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional }
     ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional } |
      ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                           CRITICALITY notify TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional }
     ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional
      ID id-TDD-DCHs-to-Modify
                                   CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                                   PRESENCE optional
      ID id-DCHs-to-Add-TDD
                               CRITICALITY reject TYPE DCH-TDD-Information
                                                                                   PRESENCE optional
      ID id-DCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional } |
      ID id-DSCH-ModifyList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DSCH-ModifyList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional }
      ID id-DSCHs-to-Add-TDD
                                   CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                           PRESENCE optional } |
      ID id-DSCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DSCH-DeleteList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional
      ID id-USCH-ModifyList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE USCH-ModifyList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional }
      ID id-USCHs-to-Add
                               CRITICALITY reject TYPE USCH-Information
                                                                                   PRESENCE optional } |
                                                                                                             PRESENCE optional },
     ID id-USCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE USCH-DeleteList-RL-ReconfPrepTDD
UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                   ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-AddInformation-
RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-AddInformation-RL-ReconfPrepTDD PRESENCE mandatory
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
    t.FCS
                               TFCS.
    tFCI-Coding
                               TFCI-Coding,
    punctureLimit
                                   PunctureLimit,
                                   ProtocolExtensionContainer { {UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                               CRITICALITY reject
                                                                                    PRESENCE optional } |
    { ID id-UL-SIRTarget
                                                       EXTENSION
    -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD.
```

```
{ ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR PRESENCE optional },
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                    ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEOUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   t FCS
                             TECS
                                        OPTIONAL.
   tFCI-Coding
                             TFCI-Coding
                                                    OPTIONAL,
   punctureLimit
                                 PunctureLimit
                                                           OPTIONAL,
                                 ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget
                             CRITICALITY reject
                                                    EXTENSION
                                                                   UL-SIR
                                                                              PRESENCE optional |
    -- This IE shall be applicable for 1.28Mcps TDD only.
    { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR
                                                                                                                              PRESENCE
    optional },
   -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                    ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD
                                                      CRITICALITY notify TYPE UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD PRESENCE mandatory
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                             ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-AddInformation-
RL-ReconfPrepTDD-IEs} }
```

```
DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD CRITICALITY notify TYPE DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDDPRESENCE mandatory
}
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEOUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   tFCS
                             TFCS,
   tFCI-Coding
                             TFCI-Coding,
   punctureLimit
                                 PunctureLimit,
   cCTrCH-TPCList
                                 CCTrCH-TPCAddList-RL-ReconfPrepTDD OPTIONAL,
                                 ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional },
   . . .
CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD
CCTrCH-TPCAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                                 CCTrCH-ID,
   iE-Extensions
                                 ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                   ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
ModifyInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   t.FCS
                             TFCS
                                        OPTIONAL.
   tFCI-Coding
                             TFCI-Coding
                                                   OPTIONAL,
   punctureLimit
                                 PunctureLimit
                                                           OPTIONAL,
   cCTrCH-TPCList
                                 CCTrCH-TPCModifyList-RL-ReconfPrepTDD
                                                                          OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
```

```
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD CRITICALITY reject
                                                                                               EXTENSION TDD-TPC-DownlinkStepSize PRESENCE
    optional },
    . . .
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
                                       ::= SEOUENCE {
    cCTrCH-ID
                                    CCTrCH-ID,
    iE-Extensions
                                    ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                      ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD
                                                              CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD PRESENCE
mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepTDD
                                            ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID
                                DCH-ID,
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD
DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
```

```
dSCH-ID
                                        DSCH-ID.
    dl-ccTrCHID
                                        CCTrCH-ID
                                                                         OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                         OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                         OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                         OPTIONAL,
   bLER
                                        BLER
                                                                         OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
DSCH-ModifyItem-RL-ReconfPrepTDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional }
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                     EXTENSION
                                                                                 BindingID
                                                                                                           PRESENCE
                                                                                                                     optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                                 TransportLayerAddress
                                                                                                                        optional },
                                                                     EXTENSION
                                                                                                            PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD
DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID
    iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD
USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   uSCH-ID
                                        USCH-ID,
    ul-ccTrCHID
                                        CCTrCH-ID
                                                                         OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                         OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                         OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                         OPTIONAL,
                                                                         OPTIONAL,
                                        BLER
   bLER
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    rb-Info
                                        RB-Info
                                                                         OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional } |
```

```
RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkReconfigurationReadvFDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}
                                                                                                                              OPTIONAL,
    . . .
RadioLinkReconfigurationReadyFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseList-RL-ReconfReadyFDD
                                                          CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfReadyFDD
                                                                                                                                  PRESENCE optional
    { ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                PRESENCE optional },
    . . .
RL-InformationResponseList-RL-ReconfReadyFDD
                                                   ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfReadyFDD-IEs} }
RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseItem-RL-ReconfReadyFDD
                                                         CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfReadyFDD
                                                                                                                                  PRESENCE mandatory
RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
    rL-ID
                                   RL-ID,
    max-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
   min-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
    maximumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
    minimumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
                                   Secondary-CCPCH-Info
    secondary-CCPCH-Info
                                                              OPTIONAL,
                                                                              OPTIONAL,
    dl-CodeInformationList
                                   DL-CodeInformationList-RL-ReconfReadyFDD
    dCHInformationResponse
                                   DCH-InformationResponseList-RL-ReconfReadyFDD
                                                                                  OPTIONAL,
   dSCHsToBeAddedOrModified
                                   DSCHsToBeAddedOrModified-RL-ReconfReadyFDD
                                                                                  OPTIONAL,
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DL-PowerBalancing-UpdatedIndicator
                                                      CRITICALITY ignore EXTENSION DL-PowerBalancing-UpdatedIndicator
                                                                                                                         PRESENCE optional |
     ID id-HSDSCH-FDD-Information-Response
                                                      CRITICALITY ignore EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                             PRESENCE optional | |
     ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation PRESENCE optional }
     ID id-Secondary-CPICH-Information-Change
                                                      CRITICALITY ignore EXTENSION Secondary-CPICH-Information-Change
                                                                                                                               PRESENCE optional },
    . . .
DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}
DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DCH-InformationResponseList-RL-ReconfReadyFDD
                                                          ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }
```

```
DCH-InformationResponseListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse
                                      CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                             PRESENCE mandatory
DSCHsToBeAddedOrModified-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container { {DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD} }
DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCHsToBeAddedOrModified-FDD
                                          CRITICALITY ignore TYPE DSCH-FDD-InformationResponse
                                                                                                  PRESENCE mandatory }
RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-RNTI
                                   CRITICALITY ignore
                                                              EXTENSION DSCH-RNTI
                                                                                     PRESENCE optional } |
     ID id-HSDSCH-RNTI
                               CRITICALITY reject
                                                      EXTENSION HSDSCH-RNTI
                                                                                             PRESENCE optional } |
    { ID id-MAChs-ResetIndicator
                                  CRITICALITY reject
                                                          EXTENSION MAChs-ResetIndicator
                                                                                                    PRESENCE optional },
    ****************
-- RADIO LINK RECONFIGURATION READY TDD
          ******************
RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                             {{RadioLinkReconfigurationReadyTDD-IEs}},
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}
   protocolExtensions
                                                                                                                             OPTIONAL,
RadioLinkReconfigurationReadyTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                           CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfReadyTDD
                                                                                             PRESENCE optional
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
    { ID id-CriticalityDiagnostics
    . . .
RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
   rL-ID
                                   RL-ID,
   max-UL-SIR
                                   UL-SIR
                                                  OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   maximumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
                                  DL-Power
                                                  OPTIONAL,
   minimumDLTxPower
   secondary-CCPCH-Info-TDD
                                   Secondary-CCPCH-Info-TDD
                                                              OPTIONAL,
   ul-CCTrCH-Information
                                  UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                                                  OPTIONAL,
   dl-CCTrCH-Information
                                  DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
   dCHInformationResponse
                                   DCH-InformationResponseList-RL-ReconfReadyTDD
   dSCHsToBeAddedOrModified
                                   DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                             OPTIONAL,
   uSCHsToBeAddedOrModified
                                  USCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                             OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
```

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```
RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-TDD-Information-Response
                                             CRITICALITY ignore EXTENSION HSDSCH-TDD-Information-Response
                                                                                                          PRESENCE optional |
    { ID id-UL-TimingAdvanceCtrl-LCR
                                             CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                                        PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                 ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory
UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
    cCTrCH-ID
   ul-DPCH-AddInformation
                                  UL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                       OPTIONAL.
   --For 3.84Mcps TDD only
   ul-DPCH-ModifyInformation
                                  UL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                           OPTIONAL,
    --For 3.84Mcps TDD only
   ul-DPCH-DeleteInformation
                                  UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                           OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                   EXTENSION
                                                                                               UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD
    PRESENCE optional },
    --For 1.28Mcps TDD only
UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
    repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
    tDD-DPCHOffset
                                  TDD-DPCHOffset,
   uL-TimeslotLCR-Info
                                  UL-TimeslotLCR-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
```

```
UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
optional }
UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                               RepetitionPeriod,
   repetitionLength
                               RepetitionLength,
   tDD-DPCHOffset
                               TDD-DPCHOffset,
   rxTimingDeviationForTA
                               RxTimingDeviationForTA
                                                          OPTIONAL,
   uL-Timeslot-Information
                               UL-Timeslot-Information,
                               ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD::= SEQUENCE {
   repetitionPeriod
                               RepetitionPeriod
                                                       OPTIONAL,
   repetitionLength
                               RepetitionLength
                                                       OPTIONAL,
   tDD-DPCHOffset
                               TDD-DPCHOffset
                                                       OPTIONAL,
   uL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                       UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                        OPTIONAL,
   --For 3.84Mcps TDD only
   iE-Extensions
                               ProtocolExtensionContainer { {UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   . . .
UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION UL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                 PRESENCE optional },
   --For 1.28Mcps TDD only
   . . .
UL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   timeSlotLCR
                               TimeSlotLCR,
   midambleShiftLCR
                               MidambleShiftLCR
                                                       OPTIONAL,
                               TFCI-Presence
                                                   OPTIONAL,
   tFCI-Presence
                                  TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
   tDD-uL-Code-LCR-Information
                                                                                       OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
```

```
TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID.
    tDD-ChannelisationCodeLCR
                                        TDD-ChannelisationCodeLCR
                                                                        OPTIONAL,
   iE-Extensions
                                    ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD CRITICALITY
                                                                                      reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR PRESENCE
optional},
    . . .
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                                MidambleShiftAndBurstType
                                                                                    OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
   uL-Code-Information
                                TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                            OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEOUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                                    DPCH-ID.
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode
                                                                OPTIONAL,
                                    ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                           DPCH-ID,
                               ProtocolExtensionContainer { {UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                             ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
DL-CCTrCH-InformationList-RL-ReconfReadyTDD
DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                               CCTrCH-ID,
   dl-DPCH-AddInformation
                               DL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                               OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-ModifyInformation
                               DL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                               OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-DeleteInformation
                               DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                               OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   DL-DPCH-LCR-InformationAddList-RL-
                                                                               EXTENSION
ReconfReadyTDD
                 PRESENCE optional |
   --For 1.28Mcps TDD only
   { ID id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD
                                                    CRITICALITY ignore EXTENSION DL-Power
                                                                                                    PRESENCE optional } |
   -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
   { ID id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD
                                                    CRITICALITY ignore EXTENSION DL-Power
                                                                                                    PRESENCE optional },
   -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
```

```
repetitionPeriod
                               RepetitionPeriod,
   repetitionLength
                               RepetitionLength,
   tDD-DPCHOffset
                               TDD-DPCHOffset,
   dL-TimeslotLCR-Info
                               DL-TimeslotLCR-Information,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                               RepetitionPeriod,
   repetitionLength
                               RepetitionLength,
                               TDD-DPCHOffset,
   tDD-DPCHOffset
   dL-Timeslot-Information
                               DL-Timeslot-Information,
                               ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE
   repetitionPeriod
                               RepetitionPeriod
                                                        OPTIONAL,
   repetitionLength
                               RepetitionLength
                                                        OPTIONAL,
                               TDD-DPCHOffset
   tDD-DPCHOffset
                                                        OPTIONAL,
   dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                        DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                           OPTIONAL,
   --For 3.84Mcps TDD only
   iE-Extensions
                               ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   . . .
DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
{ ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                      CRITICALITY ignore
                                                                                            EXTENSION DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                    PRESENCE optional },
    --For 1.28Mcps TDD only
DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEOUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                                OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    tDD-dL-Code-LCR-Information
                                    TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                                  OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL.
TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEOUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCodeLCR
                                    TDD-ChannelisationCodeLCR
                                                                    OPTIONAL.
                                    ProtocolExtensionContainer { {TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                                                    DL-Power
                                                                                                                                PRESENCE optional }
                                                                                                        EXTENSION
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                                        EXTENSION
                                                                                                                    DL-Power
                                                                                                                                PRESENCE optional },
    . . .
DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType
                                                                        OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    dL-Code-Information
                                    TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                                OPTIONAL.
                                    ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
                              DPCH-ID.
   tDD-ChannelisationCode
                              TDD-ChannelisationCode
                                                      OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   optional},
   . . .
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                           DPCH-ID,
                              ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfReadyTDD
                                                  ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }
DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DCH-InformationResponse
                                 CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                 PRESENCE mandatory
DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                            DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD CRITICALITY ignore TYPE DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD PRESENCE mandatory
DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
```

```
dsch-ID
                        DSCH-ID,
   transportFormatManagement TransportFormatManagement,
   dSCH-FlowControlInformation DSCH-FlowControlInformation,
   bindingID
                        BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
                        ProtocolExtensionContainer { {DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCHToBeAddedOrModified-RL-ReconfReadvTDD
                                             ::= ProtocolIE-Single-Container { { USCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD}}
}USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
     PRESENCE mandatory
USCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEOUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
   uSCH-ID
                        USCH-ID,
   transportFormatManagement TransportFormatManagement,
   bindingID
                        BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
   iE-Extensions
                        . . .
USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    etional | |
    ID id-HSDSCH-RNTI
                           CRITICALITY reject
                                                 EXTENSION HSDSCH-RNTI
                                                                                   PRESENCE optional }
     ID id-DSCH-RNTI
                               CRITICALITY ignore
                                                       EXTENSION DSCH-RNTI
                                                                             PRESENCE optional } |
   { ID id-MAChs-ResetIndicator
                               CRITICALITY reject
                                                    EXTENSION MAChs-ResetIndicator
                                                                                          PRESENCE optional },
                        DI. ID
  ReconfigurationReadyTDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::
```

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```
-- RADIO LINK RECONFIGURATION COMMIT
  ****************
RadioLinkReconfigurationCommit ::= SEQUENCE {
                                                       {{RadioLinkReconfigurationCommit-IEs}},
   protocolIEs
                               ProtocolIE-Container
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}
                                                                                                               OPTIONAL,
RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-CFN
                           CRITICALITY ignore TYPE CFN
                                                                      PRESENCE mandatory } |
   { ID id-Active-Pattern-Sequence-Information
                                             CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                                    PRESENCE optional \, --FDD only
   . . .
RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK RECONFIGURATION FAILURE
          *************
RadioLinkReconfigurationFailure ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{RadioLinkReconfigurationFailure-IEs}},
                               ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
RadioLinkReconfigurationFailure-IES RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-ReconfFailure
                                      CRITICALITY ignore TYPE CauseLevel-RL-Reconffailure PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                     PRESENCE optional },
   . . .
CauseLevel-RL-ReconfFailure ::= CHOICE {
                    GeneralCauseList-RL-ReconfFailure,
   generalCause
   rLSpecificCause
                    RLSpecificCauseList-RL-ReconfFailure,
   . . .
GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
                                          Cause,
```

```
iE-Extensions
                                          ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }
                                                                                                                   OPTIONAL,
GeneralCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-Reconffailure ::= SEOUENCE {
   rL-ReconfigurationFailureList-RL-ReconfFailure
                                                 RL-ReconfigurationFailureList-RL-ReconfFailure
   iE-Extensions
                                                 OPTIONAL,
   . . .
RLSpecificCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-ReconfigurationFailureList-RL-Reconffailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }
RL-ReconfigurationFailure-RL-ReconfFailure-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore TYPE RL-ReconfigurationFailure-RL-ReconfFail PRESENCE mandatory
RL-ReconfigurationFailure-RL-ReconfFail ::= SEQUENCE {
   rL-ID
                            RL-ID,
   cause
                            Cause,
                               ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK RECONFIGURATION CANCEL
      RadioLinkReconfigurationCancel ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{RadioLinkReconfigurationCancel-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
                                                                                                                OPTIONAL,
```

```
RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION REQUEST FDD
  -----
RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
                                                          {{RadioLinkReconfigurationRequestFDD-IEs}},
   protocolIEs
                                 ProtocolIE-Container
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                         OPTIONAL,
   . . .
RadioLinkReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                              CRITICALITY reject TYPE AllowedQueuingTime
                                                                                        PRESENCE optional } |
                                                       CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfigstFDD PRESENCE optional }
     ID id-UL-DPCH-Information-RL-ReconfRqstFDD
                                                       CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfRgstFDDPRESENCE optional }
     ID id-DL-DPCH-Information-RL-ReconfRqstFDD
     PRESENCE optional
     ID id-DCHs-to-Add-FDD
                             CRITICALITY reject TYPE DCH-FDD-Information
                                                                             PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfRqstFDD
                                            CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstFDD
                                                                                                     PRESENCE optional } |
    ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional },
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE
   t.FCS
                                 ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
                                TFCS
                                       OPTIONAL,
   tFCI-SignallingMode
                                 TFCI-SignallingMode OPTIONAL,
   limitedPowerIncrease
                                 LimitedPowerIncrease OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DCH-DeleteList-RL-ReconfRqstFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
   dCH-ID
                                  DCH-ID,
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore EXTENSION RL-ReconfigurationRequestFDD-RL-InformationList
                                                                                                                                      PRESENCE
    optional}|
     ID id-DL-ReferencePowerInformation
                                                        CRITICALITY ignore EXTENSION DL-ReferencePowerInformation
                                                                                                                        PRESENCE optional }
     ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                           CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation
                      PRESENCE optional } |
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation-Of-HS-DSCH
                                 PRESENCE optional },
    . . .
RL-ReconfigurationRequestFDD-RL-InformationList ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }
RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
     ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE optional
RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
    rL-ID
                          RL-ID,
   rL-Specific-DCH-Info
                          RL-Specific-DCH-Info OPTIONAL,
   iE-Extensions
                          ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     -- RADIO LINK RECONFIGURATION REQUEST TDD
  ****************
```

```
RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkReconfigurationReguestTDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}
                                                                                                                                  OPTIONAL,
RadioLinkReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                                                                               PRESENCE optional } |
                                       CRITICALITY reject TYPE AllowedQueuingTime
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                                                                                                         PRESENCE
optional } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD PRESENCE
optional } |
     ID id-TDD-DCHs-to-Modify
                                   CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                                   PRESENCE optional
     ID id-DCHs-to-Add-TDD
                               CRITICALITY reject TYPE DCH-TDD-Information
                                                                                   PRESENCE optional
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD
                                               CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstTDD
                                                                                                            PRESENCE optional },
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                       ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationModifyList-RL-ReconfRgstTDD-IEs} }
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
                                                             CRITICALITY notify TYPE UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD PRESENCE
mandatory }
UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD ::= SEQUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
    t.FCS
                               TFCS
                                           OPTIONAL,
                                   ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget
                             CRITICALITY reject
                                                     EXTENSION
                                                                    UL-SIR
                                                                                PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
                                                       ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
                                                             CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD PRESENCE
mandatory }
```

```
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   iE-Extensions
                              ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL.
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                               ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   t.FCS
                                     OPTIONAL.
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                               ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                          CCTrCH-ID,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DCH-DeleteList-RL-ReconfRqstTDD
                              ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD
DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   dCH-ID
                           DCH-ID,
```

```
iE-Extensions
                                 ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
DCH-DeleteItem-RL-ReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  EXTENSION RL-ReconfigurationRequestTDD-RL-Information
                                                                                                                               PRESENCE
   optional},
   . . .
RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
                         RL-ID,
   rL-Specific-DCH-Info
                         RL-Specific-DCH-Info OPTIONAL,
                         ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-ReconfigurationRequestTDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
          id-UL-Synchronisation-Parameters-LCR
                                                                                       UL-Synchronisation-Parameters-LCR
                                                      CRITICALITY ignore
                                                                             EXTENSION
                                                                                                                          PRESENCE
   optional
             }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
  *****************
-- RADIO LINK RECONFIGURATION RESPONSE FDD
  ******************
RadioLinkReconfigurationResponseFDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                          {{RadioLinkReconfigurationResponseFDD-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}
                                                                                                                         OPTIONAL,
RadioLinkReconfigurationResponseFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseList-RL-ReconfRspFDD
                                                      CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfRspFDD
                                                                                                                          PRESENCE optional
    { ID id-CriticalityDiagnostics
                                        CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                         PRESENCE optional },
RL-InformationResponseList-RL-ReconfRspFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfRspFDD-IEs} }
RL-InformationResponse-RL-ReconfRspFDD-IES RNSAP-PROTOCOL-IES ::= {
```

```
ID id-RL-InformationResponseItem-RL-ReconfRspFDD
                                                        CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRspFDD PRESENCE mandatory
RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
                                 RL-ID,
   max-UL-SIR
                                 UL-SIR
                                                 OPTIONAL,
   min-UL-SIR
                                 UL-SIR
                                                 OPTIONAL,
   maximumDLTxPower
                                 DL-Power
                                                 OPTIONAL,
   minimumDLTxPower
                                                 OPTIONAL,
                                 DL-Power
   secondary-CCPCH-Info
                                 Secondary-CCPCH-Info
                                                            OPTIONAL,
                                 DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
   dCHsInformationResponseList
   dL-CodeInformationList-RL-ReconfResp
                                         DL-CodeInformationList-RL-ReconfRspFDD OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-PowerBalancing-UpdatedIndicator CRITICALITY ignore
                                                                                  DL-PowerBalancing-UpdatedIndicator
                                                                                                                       PRESENCE optional },
DCH-InformationResponseList-RL-ReconfRspFDD
                                                    ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }
DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
     ID id-DCH-InformationResponse
                                     CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                          PRESENCE mandatory
DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}
DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE optional
RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION RESPONSE TDD
  *****************
RadioLinkReconfigurationResponseTDD ::= SEQUENCE {
                                                           {{RadioLinkReconfigurationResponseTDD-IEs}},
   protocolIEs
                                 ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}
                                                                                                                            OPTIONAL,
RadioLinkReconfigurationResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
ID id-RL-InformationResponse-RL-ReconfRspTDD
                                                 CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfRspTDD
                                                                                                                 PRESENCE optional }
   { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                      PRESENCE optional },
   . . .
RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   max-UL-SIR
                               UL-SIR
                                              OPTIONAL,
   min-UL-SIR
                                UL-SIR
                                              OPTIONAL,
   maximumDLTxPower
                                              OPTIONAL,
                                DL-Power
   minimumDLTxPower
                                DL-Power
                                              OPTIONAL,
   dCHsInformationResponseList
                                DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL,
   iE-Extensions
                                ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
   . . .
RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     { ID id-UL-TimingAdvanceCtrl-LCR
                                                 CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                                      PRESENCE optional },
   --For 1.28Mcps TDD only
   . . .
DL-CCTrCH-InformationList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfRspTDD
DL-CCTrCH-InformationItem-RL-ReconfRspTDD ::= SEQUENCE {
   cCTrCH-ID
   dl-DPCH-ModifyInformation-LCR
                                          DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD
                                                                                            OPTIONAL,
   --For 1.28Mcps TDD only
   cCTrCH-Maximum-DL-Power
                                          DL-Power
                                                               OPTIONAL,
   --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
   cCTrCH-Minimum-DL-Power
                                                               OPTIONAL,
                                          DL-Power
   --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
                                          ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs} }
   iE-Extensions
                                                                                                                      OPTIONAL,
   . . .
DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD }}
DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
optional },
   . . .
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD ::= SEQUENCE
  dL-Timeslot-LCR-InformationModifyList-RL-ReconfRqstTDD
                                                        DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD
                                                                                                              OPTIONAL,
```

```
iE-ExtensionsProtocolExtensionContainer { { DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs} }
                                                                                                               OPTIONAL,
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD
                                                     ::= SEQUENCE {
   timeSlotLCR
                                         TimeSlotLCR,
                                                    OPTIONAL,
   maxPowerLCR
                                         DL-Power
   minPowerLCR
                                         DL-Power
                                                    OPTIONAL,
   iE-Extensions
                                         ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs} }
                                                                                                                                      OPTIONAL.
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfRspTDD
                                                    ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspTDD} }
DCH-InformationResponseListIEs-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                   PRESENCE optional }
RadioLinkReconfigurationResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK FAILURE INDICATION
  *****************
RadioLinkFailureIndication ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkFailureIndication-IEs}},
                                 ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporting-Object-RL-FailureInd CRITICALITY ignore TYPE Reporting-Object-RL-FailureInd
                                                                                                 PRESENCE mandatory },
   . . .
Reporting-Object-RL-FailureInd ::= CHOICE
                          RL-RL-FailureInd,
```

```
RL-Set-RL-FailureInd, --FDD only
    rL-Set.
    . . . ,
    cCTrCH
                           CCTrCH-RL-FailureInd --TDD only
RL-RL-FailureInd
                           ::= SEQUENCE {
    rL-InformationList-RL-FailureInd
                                            RL-InformationList-RL-FailureInd,
                                            ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-FailureInd
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs} }
RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-FailureInd
                                             CRITICALITY ignore TYPE RL-Information-RL-FailureInd
                                                                                                          PRESENCE mandatory
RL-Information-RL-FailureInd ::= SEQUENCE {
   rL-ID
    cause
                                    ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-FailureInd
                                ::= SEOUENCE
    rL-Set-InformationList-RL-FailureInd
                                            RL-Set-InformationList-RL-FailureInd,
                                            ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RL-Set-InformationList-RL-FailureInd
FailureInd-IEs} }
RL-Set-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-FailureInd
                                                   CRITICALITY ignore TYPE RL-Set-Information-RL-FailureInd PRESENCE mandatory
RL-Set-Information-RL-FailureInd ::= SEQUENCE {
    rL-Set-ID
                                    RL-Set-ID,
```

```
cause
                                  Cause,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-FailureInd ::= SEQUENCE {
                                             RL-ID,
   cCTrCH-InformationList-RL-FailureInd
                                             CCTrCH-InformationList-RL-FailureInd.
                                         ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }
   iE-Extensions
                                                                                                            OPTIONAL,
CCTrCHItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-FailureInd}}
CCTrCH-InformationItemIE-RL-FailureInd RNSAP-PROTOCOL-IES ::= {
          id-CCTrCH-InformationItem-RL-FailureInd
                                                                                      TYPE CCTrCH-InformationItem-RL-FailureInd
                                                        CRITICALITY
                                                                       ignore
                                                                                                                                      PRESENCE
   mandatory}
CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE
   cCTrCH-ID
                                             CCTrCH-ID,
   cause
                                             Cause,
                                             ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }
   iE-Extensions
                                                                                                                          OPTIONAL,
CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK PREEMPTION REQUIRED INDICATION
__ ********************
RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
   protocolIEs
                                                           {{RadioLinkPreemptionRequiredIndication-IEs}},
                                 ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}
                                                                                                                              OPTIONAL,
```

```
RadioLinkPreemptionRequiredIndication-IEs RNSAP-PROTOCOL-IES ::= {
   . . .
RL-InformationList-RL-PreemptRequiredInd
                                          ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
PreemptRequiredInd} }
RL-InformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    ID id-RL-InformationItem-RL-PreemptRequiredInd
                                                  CRITICALITY ignore TYPE RL-InformationItem-RL-PreemptRequiredInd
                                                                                                            PRESENCE mandatory
RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
   rL-ID
                          RL-ID,
                          ProtocolExtensionContainer { {RL-Information-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkPreemptionRequiredIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   PreemptRequiredInd PRESENCE optional },
HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd ::= SEOUENCE (SIZE (1.. maxNrOfMACdFlows)) OF ProtocolIE-Single-Container {
{HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd} }
HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
                                                               CRITICALITY ignore TYPE HSDSCHMacdFlowSpecificInformationItem-RL-
   { ID id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd
PreemptRequiredInd PRESENCE mandatory }
HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                    HSDSCH-MACdFlow-ID,
                          ProtocolExtensionContainer { { HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
   iE-Extensions
HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
```

```
-- RADIO LINK RESTORE INDICATION
__ **********************
RadioLinkRestoreIndication ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{RadioLinkRestoreIndication-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}
                                                                                                              OPTIONAL,
RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
   . . .
Reporting-Object-RL-RestoreInd ::= CHOICE {
                        RL-RL-RestoreInd, --TDD only
   rL-Set
                        RL-Set-RL-RestoreInd, --FDD only
   . . . ,
   cCTrCH
                        CCTrCH-RL-RestoreInd --TDD only
RL-RL-RestoreInd ::= SEQUENCE {
   rL-InformationList-RL-RestoreInd
                                       RL-InformationList-RL-RestoreInd,
   iE-Extensions
                                       ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
RLItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-RestoreInd
                                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-RestoreInd-IEs} }
RL-Information-RL-RestoreInd-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-RestoreInd
                                           CRITICALITY ignore TYPE RL-Information-RL-RestoreInd
                                                                                               PRESENCE mandatory
RL-Information-RL-RestoreInd ::= SEQUENCE {
   rL-ID
                                ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-RestoreInd ::= SEQUENCE {
   rL-Set-InformationList-RL-RestoreInd RL-Set-InformationList-RL-RestoreInd,
```

```
iE-Extensions
                                         ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
RL-SetItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-RestoreInd
                                             ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RestoreInd-IEs} }
RL-Set-Information-RL-RestoreInd-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-RestoreInd
                                                 CRITICALITY ignore TYPE RL-Set-Information-RL-RestoreInd PRESENCE mandatory }
RL-Set-Information-RL-RestoreInd ::= SEOUENCE {
   rL-Set-ID
                                  ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-RestoreInd ::= SEQUENCE {
                                             RL-ID,
   cCTrCH-InformationList-RL-RestoreInd
                                             CCTrCH-InformationList-RL-RestoreInd,
   iE-Extensions
                                         ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }
                                                                                                             OPTIONAL,
CCTrCHItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-RestoreInd}}
CCTrCH-InformationItemIE-RL-RestoreInd RNSAP-PROTOCOL-IES ::= {
         id-CCTrCH-InformationItem-RL-RestoreInd
                                                         CRITICALITY
                                                                        ignore
                                                                                       TYPE CCTrCH-InformationItem-RL-RestoreInd
                                                                                                                                       PRESENCE
    mandatory}
CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
   cCTrCH-ID
                                                 CCTrCH-ID,
   iE-Extensions
                                             OPTIONAL.
```

```
CCTrCH-InformationItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   *************
-- DOWNLINK POWER CONTROL REQUEST
__ **********************
DL-PowerControlRequest ::= SEOUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{DL-PowerControlRequest-IEs}},
                                  ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}
                                                                                                                  OPTIONAL,
   protocolExtensions
DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-PowerAdjustmentType
                                      CRITICALITY ignore TYPE PowerAdjustmentType
                                                                                             PRESENCE mandatory}
     ID id-DLReferencePower
                                      CRITICALITY ignore TYPE DL-Power
                                                                                             PRESENCE conditional }
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
                                                                                             PRESENCE optional }
    { ID id-InnerLoopDLPCStatus
                                     CRITICALITY ignore TYPE InnerLoopDLPCStatus
    { ID id-DLReferencePowerList-DL-PC-Rgst
                                             CRITICALITY ignore TYPE DL-ReferencePowerInformationList-DL-PC-Rgst PRESENCE conditional}
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
   { ID id-MaxAdjustmentStep
                                     CRITICALITY ignore TYPE MaxAdjustmentStep
                                                                                        PRESENCE conditional }
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod
                                      CRITICALITY ignore TYPE AdjustmentPeriod
                                                                                        PRESENCE conditional } |
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
   { ID id-AdjustmentRatio
                                  CRITICALITY ignore TYPE ScaledAdjustmentRatio
                                                                                        PRESENCE conditional },
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
DL-ReferencePowerInformationList-DL-PC-Rgst
                                                 ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {DL-ReferencePowerInformation-
DL-PC-Rqst-IEs} }
DL-ReferencePowerInformation-DL-PC-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformation-DL-PC-Rgst CRITICALITY ignore TYPE DL-ReferencePowerInformation-DL-PC-Rgst PRESENCE mandatory }
DL-ReferencePowerInformation-DL-PC-Rgst ::= SEQUENCE {
   rL-ID
                              RL-ID,
   dl-Reference-Power
                                      DL-Power,
                                  ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rgst-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ******************
-- DOWNLINK POWER TIMESLOT CONTROL REQUEST TDD
__ ********************
DL-PowerTimeslotControlRequest ::= SEQUENCE {
  protocolIEs
                           ProtocolIE-Container
                                                {{DL-PowerTimeslotControlRequest-IEs}},
  protocolExtensions
                           ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}
                                                                                                OPTIONAL,
DL-PowerTimeslotControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
   --Mandatory for 3.84Mcps TDD only
   . . .
DL-PowerTimeslotControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   ignore EXTENSION DL-TimeSlot-ISCP-LCR-Information PRESENCE optional |
   --Mandatory for 1.28Mcps TDD only
   { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD
                                       CRITICALITY ignore
                                                         EXTENSION PrimaryCCPCH-RSCP
                                                                                     PRESENCE optional },
   . . .
    -- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
    **********************
PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
  protocolIEs
                           ProtocolIE-Container
                                                {{PhysicalChannelReconfigurationRequestFDD-IEs}},
                           ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
   . . .
PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
   . . .
RL-Information-PhyChReconfRqstFDD ::= SEQUENCE {
   rL-ID
                        RL-ID,
   dl-CodeInformation
                           DL-CodeInformationList-PhyChReconfRqstFDD,
   iE-Extensions
                           ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
```

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```
RL-Information-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CodeInformationList-PhyChReconfRqstFDD
                                         ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }
DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FDD-DL-CodeInformation CRITICALITY notify TYPE FDD-DL-CodeInformation PRESENCE mandatory }
}
PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     -- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
  PhysicalChannelReconfigurationRequestTDD ::= SEQUENCE {
                                                       {{PhysicalChannelReconfigurationRequestTDD-IEs}},
   protocolIEs
                               ProtocolIE-Container
   protocolExtensions
                               ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}
                                                                                                                       OPTIONAL
PhysicalChannelReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
   RL-Information-PhyChReconfRgstTDD ::= SEQUENCE {
   rL-ID
                           RL-ID,
   ul-CCTrCH-Information
                                  UL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                                            OPTIONAL,
   dl-CCTrCH-Information
                                  DL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                                            OPTIONAL,
                               ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
                                                           CRITICALITY reject EXTENSION HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
   PRESENCE optional } |
   --For 3.84Mcps TDD only
   { ID id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRgstTDD CRITICALITY reject EXTENSION HSPDSCH-Timeslot-InformationListLCR-
PhyChReconfRqstTDD PRESENCE optional },
   --For 1.28Mcps TDD only
```

```
UL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                  ::= ProtocolIE-Single-Container { {UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }
UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRgstTDD
                                                              CRITICALITY reject TYPE UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                                       PRESENCE
mandatory }
UL-CCTrCH-InformationListIE-PhyChReconfRgstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRgstTDD
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
                                   CCTrCH-ID.
   cCTrCH-ID
   ul-DPCH-Information
                                  UL-DPCH-InformationList-PhyChReconfRqstTDD,
   iE-Extensions
                                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL.
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
UL-DPCH-InformationListIEs-PhyChReconfRgstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-PhyChReconfRgstTDD CRITICALITY notify TYPE UL-DPCH-InformationItem-PhyChReconfRgstTDD
                                                                                                                            PRESENCE mandatory }
UL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod
                                  RepetitionPeriod
                                                          OPTIONAL,
   repetitionLength
                                   RepetitionLength
                                                          OPTIONAL,
    tDD-DPCHOffset
                                   TDD-DPCHOffset
                                                          OPTIONAL,
                                                          UL-Timeslot-InformationList-PhyChReconfRqstTDD
   uL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                                                                          OPTIONAL,
    --For 3.84Mcps TDD only
                                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    EXTENSION UL-TimeslotLCR-InformationList-PhyChReconfRqstTDD
    PRESENCE optional },
    --For 1.28Mcps TDD only
UL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                  TimeSlotLCR,
   midambleShiftLCR
                                  MidambleShiftLCR
                                                          OPTIONAL,
   tFCI-Presence
                                  TFCI-Presence
                                                      OPTIONAL,
    uL-Code-LCR-Information
                                   TDD-UL-Code-LCR-Information
                                                                  OPTIONAL,
```

```
iE-Extensions
                                    ProtocolExtensionContainer { {UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL,
UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationList-PhyChReconfRgstTDD::= SEOUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRgstTDD
UL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstTvpe
                                                MidambleShiftAndBurstType
                                                                                OPTIONAL
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
   uL-Code-Information
                                TDD-UL-Code-Information
                                                            OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    . . .
UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                    ::= ProtocolIE-Single-Container { { DL-CCTrCH-InformationListIEs-PhyChReconfRgstTDD} }
DL-CCTrCH-InformationList-PhyChReconfRqstTDD
DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                CRITICALITY reject TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                                            PRESENCE
mandatory }
DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRqstTDD
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID
                                    CCTrCH-ID,
    dl-DPCH-Information
                                    DL-DPCH-InformationList-PhyChReconfRqstTDD,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}}
DL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-PhyChReconfRqstTDD CRITICALITY notify TYPE DL-DPCH-InformationItem-PhyChReconfRqstTDD
                                                                                                                                PRESENCE mandatory }
DL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE
                                    RepetitionPeriod
    repetitionPeriod
                                                            OPTIONAL,
```

```
repetitionLength
                                    RepetitionLength
                                                            OPTIONAL,
    tDD-DPCHOffset
                                    TDD-DPCHOffset
                                                            OPTIONAL,
    dL-Timeslot-InformationList-PhyChReconfRgstTDD
                                                            DL-Timeslot-InformationList-PhyChReconfRgstTDD
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    . . .
DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD CRITICALITY reject
                                                                                         EXTENSION DL-TimeslotLCR-InformationList-PhyChReconfRgstTDD
    PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
DL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                             OPTIONAL,
    t.FCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    dL-Code-LCR-Information
                                    TDD-DL-Code-LCR-Information
                                                                     OPTIONAL.
                                    ProtocolExtensionContainer { {DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD
DL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                                MidambleShiftAndBurstType
                                                                                 OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    dL-Code-Information
                                TDD-DL-Code-Information
                                                            OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-Timeslot-InformationList-PhyChReconfRgstTDD ::= SEOUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-PhyChReconfRgstTDD
HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD::= SEQUENCE {
    timeslot
                                                     TimeSlot,
    midambleShiftAndBurstType
                                                     MidambleShiftAndBurstType,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs } }
    OPTIONAL,
```

```
HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD
HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD::= SEQUENCE {
   timeslotLCR
                                            TimeSlotLCR,
   midambleShiftLCR
                                            MidambleShiftLCR,
                                            ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs } }
   iE-Extensions
   OPTIONAL,
   . . .
HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
__ ********************
-- PHYSICAL CHANNEL RECONFIGURATION COMMAND
  ************************
PhysicalChannelReconfigurationCommand ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{PhysicalChannelReconfigurationCommand-IEs}},
                                 ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}
   protocolExtensions
                                                                                                                            OPTIONAL,
PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CFN
                             CRITICALITY ignore TYPE CFN
                                                                         PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                          PRESENCE optional },
   . . .
PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
```

```
__ **********************
PhysicalChannelReconfigurationFailure ::= SEOUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{PhysicalChannelReconfigurationFailure-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}
                                                                                                                      OPTIONAL,
PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Cause
                               CRITICALITY ignore TYPE Cause
                                                                          PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                      PRESENCE optional },
   . . .
PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK CONGESTION INDICATION
        ********************
RadioLinkCongestionIndication ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{RadioLinkCongestionIndication-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkCongestionIndication-Extensions}}
                                                                                                               OPTIONAL,
RadioLinkCongestionIndication-IES RNSAP-PROTOCOL-IES ::= {
     ID id-CongestionCause
                                                                                                PRESENCE optional } |
                                          CRITICALITY ignore TYPE CongestionCause
    PRESENCE mandatory },
RL-InformationList-RL-CongestInd
                                      ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-CongestInd}
RL-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-CongestInd
                                              CRITICALITY ignore TYPE RL-InformationItem-RL-CongestInd PRESENCE mandatory }
RL-InformationItem-RL-CongestInd ::= SEQUENCE {
   rL-ID
                                   RL-ID,
   dCH-Rate-Information
                            DCH-Rate-Information-RL-CongestInd,
                            ProtocolExtensionContainer { {RL-Information-RL-CongestInd-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-Rate-Information-RL-CongestInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF ProtocolIE-Single-Container { {DCH-Rate-InformationItemIEs-RL-CongestInd} }
```

```
DCH-Rate-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-Rate-InformationItem-RL-CongestInd
                                                    CRITICALITY ignore TYPE DCH-Rate-InformationItem-RL-CongestInd
                                                                                                                      PRESENCE mandatory
DCH-Rate-InformationItem-RL-CongestInd ::= SEQUENCE {
   dCH-ID
                              DCH-ID,
   allowed-Rate-Information
                              Allowed-Rate-Information OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DCH-Rate-InformationItem-RL-CongestInd-ExtIEs} } OPTIONAL.
DCH-Rate-InformationItem-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkCongestionIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
        ***************
-- UPLINK SIGNALLING TRANSFER INDICATION FDD
  UplinkSignallingTransferIndicationFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{UplinkSignallingTransferIndicationFDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{UplinkSignallingTransferIndicationFDD-Extensions}}
                                                                                                                               OPTIONAL,
UplinkSignallingTransferIndicationFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-UC-ID
                                  CRITICALITY ignore TYPE UC-ID
                                                                               PRESENCE mandatory }
     ID id-SAI
                                                                           PRESENCE mandatory }
                              CRITICALITY ignore TYPE SAI
     ID id-GA-Cell
                              CRITICALITY ignore TYPE GA-Cell
                                                                            PRESENCE optional } |
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                               PRESENCE mandatory
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                               PRESENCE mandatory
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                               PRESENCE optional
     ID id-PropagationDelay
                                  CRITICALITY ignore TYPE PropagationDelay
                                                                               PRESENCE mandatory }
                                             CRITICALITY ignore TYPE STTD-SupportIndicator PRESENCE mandatory }
     ID id-STTD-SupportIndicator
     ID id-ClosedLoopModel-SupportIndicator
                                             CRITICALITY ignore TYPE ClosedLoopModel-SupportIndicator PRESENCE mandatory }
     ID id-ClosedLoopMode2-SupportIndicator
                                             CRITICALITY ignore TYPE ClosedLoopMode2-SupportIndicator PRESENCE mandatory }
     ID id-L3-Information
                                     CRITICALITY ignore TYPE L3-Information
                                                                                      PRESENCE mandatory } |
     ID id-CN-PS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                            PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                            PRESENCE optional }
     ID id-URA-Information
                                         CRITICALITY ignore TYPE URA-Information
                                                                                               PRESENCE optional },
```

```
UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                   PRESENCE optional }
     ID id-DPC-Mode-Change-SupportIndicator
                                              CRITICALITY ignore EXTENSION
                                                                                DPC-Mode-Change-SupportIndicator
                                                                                                                    PRESENCE optional } |
    ID id-CommonTransportChannelResourcesInitialisationNotRequired
                                                                     CRITICALITY ignore EXTENSION
                                                             PRESENCE optional } |
CommonTransportChannelResourcesInitialisationNotRequired
     ID id-CellCapabilityContainer-FDD
                                          CRITICALITY ignore EXTENSION CellCapabilityContainer-FDD
                                                                                                      PRESENCE optional } |
    { ID id-SNA-Information
                                          CRITICALITY ignore
                                                                     EXTENSION SNA-Information
                                                                                                   PRESENCE optional },
     -- UPLINK SIGNALLING TRANSFER INDICATION TDD
   *****************
UplinkSignallingTransferIndicationTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{UplinkSignallingTransferIndicationTDD-IEs}},
                                  ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}
   protocolExtensions
                                                                                                                                 OPTIONAL,
UplinkSignallingTransferIndicationTDD-IES RNSAP-PROTOCOL-IES ::=
     ID id-UC-ID
                                  CRITICALITY ignore TYPE UC-ID
                                                                                PRESENCE mandatory } |
     ID id-SAI
                              CRITICALITY ignore TYPE SAI
                                                                             PRESENCE mandatory }
                              CRITICALITY ignore TYPE GA-Cell
                                                                             PRESENCE optional }
     ID id-GA-Cell
                                                                                PRESENCE mandatory
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                PRESENCE mandatory
     ID id-D-RNTI
                                                                                PRESENCE optional
                                  CRITICALITY ignore TYPE D-RNTI
     ID id-RxTimingDeviationForTA
                                          CRITICALITY ignore TYPE RxTimingDeviationForTA PRESENCE mandatory }
     ID id-L3-Information
                                      CRITICALITY ignore TYPE L3-Information
                                                                                        PRESENCE mandatory }
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                              PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                              PRESENCE optional }
    ID id-URA-Information
                                          CRITICALITY ignore TYPE URA-Information
                                                                                                PRESENCE optional },
    . . .
UplinkSignallingTransferIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                   PRESENCE optional } |
    ID id-CommonTransportChannelResourcesInitialisationNotRequired
                                                                     CRITICALITY ignore EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired
                                                             PRESENCE optional }
    { ID id-CellCapabilityContainer-TDD
                                                                        CellCapabilityContainer-TDD
                                                                                                      PRESENCE optional } |
                                          CRITICALITY ignore EXTENSION
       -- Applicable to 3.84Mcps TDD only
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION
                                                                        CellCapabilityContainer-TDD-LCR
                                                                                                            PRESENCE optional } |
       -- Applicable to 1.28Mcps TDD only
    { ID id-SNA-Information
                                          CRITICALITY ignore EXTENSION
                                                                        SNA-Information
                                                                                                      PRESENCE optional },
```

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```
-- DOWNLINK SIGNALLING TRANSFER REQUEST
__ ********************
DownlinkSignallingTransferRequest ::= SEQUENCE {
  protocolIEs
                       ProtocolIE-Container
                                           {{DownlinkSignallingTransferRequest-IEs}},
                        ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}
  protocolExtensions
                                                                                         OPTIONAL.
DownlinkSignallingTransferRequest-IES RNSAP-PROTOCOL-IES ::= {
  { ID id-C-ID
                        CRITICALITY ignore TYPE C-ID
                                                         PRESENCE mandatory } |
  -- May be a GERAN cell identifier
  { ID id-D-RNTI
                        CRITICALITY ignore TYPE D-RNTI
                                                         PRESENCE mandatory } |
                                                               PRESENCE mandatory } |
   { ID id-L3-Information
                     CRITICALITY ignore TYPE L3-Information
  DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RELOCATION COMMIT
__ **********************
RelocationCommit ::= SEQUENCE {
                                           {{RelocationCommit-IEs}},
  protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{RelocationCommit-Extensions}}
  protocolExtensions
                                                                              OPTIONAL,
RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
   ID id-D-RNTI
                        CRITICALITY ignore TYPE D-RNTI
                                                         PRESENCE optional } |
                                                                     PRESENCE optional },
   RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- PAGING REQUEST
```

```
PagingRequest ::= SEQUENCE {
   protocolIEs
                                    ProtocolIE-Container
                                                               {{PagingReguest-IEs}},
                                    ProtocolExtensionContainer {{PagingRequest-Extensions}}
                                                                                                              OPTIONAL,
   protocolExtensions
PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-PagingArea-PagingRqst
                                            CRITICALITY ignore TYPE PagingArea-PagingRgst
                                                                                                 PRESENCE mandatory } |
     ID id-SRNC-ID
                                    CRITICALITY ignore TYPE RNC-ID
                                                                                   PRESENCE mandatory
                                                                                                           -- May be a BSC-Id.
     ID id-S-RNTI
                                    CRITICALITY ignore TYPE S-RNTI
                                                                                   PRESENCE mandatory
     ID id-IMSI
                                   CRITICALITY ignore TYPE IMSI
                                                                                  PRESENCE mandatory }
    { ID id-DRXCycleLengthCoefficient
                                                   CRITICALITY ignore TYPE DRXCycleLengthCoefficient
                                                                                                                PRESENCE mandatory
    { ID id-CNOriginatedPage-PagingRqst
                                                   CRITICALITY ignore TYPE CNOriginatedPage-PagingRqst
                                                                                                                PRESENCE optional
    . . .
PagingArea-PagingRgst ::= CHOICE {
                           URA-PagingRgst, -- May be a GRA-ID.
    cell
                           Cell-PagingRqst, -- UTRAN only
    . . .
URA-PagingRgst ::= SEQUENCE {
    uRA-ID
   iE-Extensions
                                ProtocolExtensionContainer { { URAItem-PagingRgst-ExtIEs} } OPTIONAL,
URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Cell-PagingRgst ::= SEQUENCE {
    iE-Extensions
                               ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs} } OPTIONAL,
CellItem-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNOriginatedPage-PagingRqst::= SEQUENCE {
    pagingCause
                                PagingCause,
    cNDomainType
                                CNDomainType,
    pagingRecordType
                                PagingRecordType,
   iE-Extensions
                                ProtocolExtensionContainer { { CNOriginatedPage-PagingRgst-ExtIEs} } OPTIONAL,
```

```
CNOriginatedPage-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
      -- DEDICATED MEASUREMENT INITIATION REQUEST
  ******************
DedicatedMeasurementInitiationRequest ::= SEQUENCE {
                                                       {{DedicatedMeasurementInitiationRequest-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}
   protocolExtensions
                                                                                                                     OPTIONAL,
DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                  CRITICALITY reject TYPE MeasurementID
                                                                                PRESENCE mandatory } |
   -- This IE represents both the Dedicated Measurement Object Type IE and the choice based on the Dedicated Measurement Object Type
   -- as described in the tabular message format in subclause 9.1.
     ID id-DedicatedMeasurementType
                                                                                          PRESENCE mandatory } |
                                         CRITICALITY reject TYPE DedicatedMeasurementType
     ID id-MeasurementFilterCoefficient
                                         CRITICALITY reject TYPE MeasurementFilterCoefficient
                                                                                               PRESENCE optional }
     ID id-ReportCharacteristics
                                      CRITICALITY reject TYPE ReportCharacteristics
                                                                                     PRESENCE mandatory
     ID id-CFNReportingIndicator
                                      CRITICALITY reject TYPE FNReportingIndicator
                                                                                     PRESENCE mandatory
   { ID id-CFN
                                      CRITICALITY reject TYPE CFN
                                                                                     PRESENCE optional
   . . .
DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
   rL
                        RL-DM-Rast,
   rLS
                        RL-Set-DM-Rqst,
   allRL
                        All-RL-DM-Rgst,
   allRLS
                        All-RL-Set-DM-Rgst,
RL-DM-Rqst ::= SEQUENCE {
   rL-InformationList-DM-Rgst
                               RL-InformationList-DM-Rgst,
   iE-Extensions
                               ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
   . . .
RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-InformationList-DM-Rgst
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rqst-IEs} }
RL-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst
                                         CRITICALITY reject TYPE RL-InformationItem-DM-Rqst
                                                                                                PRESENCE mandatory }
RL-InformationItem-DM-Rgst ::= SEOUENCE {
   rL-ID
                              RL-ID,
   dPCH-ID
                              DPCH-ID
                                         OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-Info-DM-Rqst
                                                                                                                 PRESENCE optional },
                                  CRITICALITY reject
                                                                 EXTENSION HSSICH-Info-DM-Rqst
    -- TDD only
    . . .
HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID
RL-Set-DM-Rgst ::= SEQUENCE {
   rL-Set-InformationList-DM-Rgst RL-Set-InformationList-DM-Rgst,
   iE-Extensions
                                  RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rqst-
RL-Set-InformationList-DM-Rqst
IEs} }
RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rqst
                                          CRITICALITY reject TYPE RL-Set-InformationItem-DM-Rqst
                                                                                                        PRESENCE mandatory }
RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
   rL-Set-ID
                                  RL-Set-ID,
                                  ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Set-InformationItem-DM-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
All-RL-DM-Rqst ::= NULL
```

```
All-RL-Set-DM-Rqst ::= NULL
DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-PartialReportingIndicator
                                     CRITICALITY ignore
                                                             EXTENSION
                                                                       PartialReportingIndicator
                                                                                                               PRESENCE optional },
    -- DEDICATED MEASUREMENT INITIATION RESPONSE
__ ********************
DedicatedMeasurementInitiationResponse ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{DedicatedMeasurementInitiationResponse-IEs}},
                              ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}
                                                                                                                   OPTIONAL,
   protocolExtensions
DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
                                                                              PRESENCE mandatory } |
     ID id-MeasurementID
                                 CRITICALITY ignore TYPE MeasurementID
     ID id-CriticalityDiagnostics
                                  CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                   PRESENCE optional },
DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
   rLs
                       RL-DM-Rsp,
   rLS
                       RL-Set-DM-Rsp,
   allRL
                       RL-DM-Rsp,
   allRLS
                       RL-Set-DM-Rsp,
   . . .
RL-DM-Rsp ::= SEQUENCE {
   rL-InformationList-DM-Rsp
                              RL-InformationList-DM-Rsp,
   iE-Extensions
                              ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rsp ::= SEOUENCE {
   rL-Set-InformationList-DM-Rsp
                              RL-Set-InformationList-DM-Rsp,
   iE-Extensions
                              ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
   . . .
```

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```
RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rsp
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rsp-IEs} }
RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp
                                           CRITICALITY ignore TYPE RL-InformationItem-DM-Rsp
                                                                                               PRESENCE mandatory }
RL-InformationItem-DM-Rsp ::= SEQUENCE {
   rL-ID
                               RL-ID,
   dPCH-ID
                               DPCH-ID
                                                   OPTIONAL,
   dedicatedMeasurementValue
                                       DedicatedMeasurementValue.
   cFN
                               CFN
                                                   OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
    . . .
RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rsp
                                   CRITICALITY reject
                                                                  EXTENSION HS-SICH-ID
                                                                                              PRESENCE optional },
    -- TDD only
RL-Set-InformationList-DM-Rsp
                                              ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-IEs}
RL-Set-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp
                                               CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rsp
                                                                                                        PRESENCE mandatory
RL-Set-InformationItem-DM-Rsp ::= SEQUENCE
   rL-Set-ID
                                   RL-Set-ID,
   dedicatedMeasurementValue
                                   DedicatedMeasurementValue,
   cFN
                                                              OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- DEDICATED MEASUREMENT INITIATION FAILURE
```

```
DedicatedMeasurementInitiationFailure ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                             {{DedicatedMeasurementInitiationFailure-IEs}},
                                   ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                                                  OPTIONAL,
DedicatedMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID
                                      CRITICALITY ignore TYPE MeasurementID
                                                                                         PRESENCE mandatory } |
     ID id-Cause
                                   CRITICALITY ignore TYPE Cause
                                                                                 PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail CRITICALITY ignore EXTENSION DedicatedMeasurementObjectType-DM-Fail PRESENCE optional },
    . . .
DedicatedMeasurementObjectType-DM-Fail ::= CHOICE {
                          RL-DM-Fail,
   rL
   rLS
                          RL-Set-DM-Fail,
   allRL
                          RL-DM-Fail,
   allRLS
                          RL-Set-DM-Fail,
RL-DM-Fail ::= SEOUENCE {
   rL-unsuccessful-InformationRespList-DM-Fail
                                                  RL-Unsuccessful-InformationRespList-DM-Fail,
   rL-successful-InformationRespList-DM-Fail
                                                  RL-Successful-InformationRespList-DM-Fail
                                                                                                  OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail ::= SEQUENCE {
   rL-Set-unsuccessful-InformationRespList-DM-Fail RL-Set-Unsuccessful-InformationRespList-DM-Fail,
   rL-Set-successful-InformationRespList-DM-Fail RL-Set-Successful-InformationRespList-DM-Fail
                                                                                                    OPTIONAL,
                                   ProtocolExtensionContainer { { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-Unsuccessful-InformationRespList-DM-Fail
                                                    ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail
                                                        CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail
                                                                                                                             PRESENCE mandatory
RL-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    individualcause
                                Cause OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    . . .
RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Successful-InformationRespList-DM-Fail
                                                    ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Successful-
InformationResp-DM-Fail-IEs} }
RL-Successful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Successful-InformationItem-DM-Fail
                                                        CRITICALITY ignore TYPE RL-Successful-InformationItem-DM-Fail PRESENCE mandatory
RL-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID
                                RL-ID.
    dPCH-ID
                                DPCH-ID
                                                    OPTIONAL,
    dedicatedMeasurementValue
                                DedicatedMeasurementValue,
                                                    OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM
                                CRITICALITY reject
                                                                EXTENSION HS-SICH-ID
                                                                                            PRESENCE optional },
    -- TDD only
    . . .
RL-Set-Unsuccessful-InformationRespList-DM-Fail
                                                            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }
RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                            CRITICALITY ignore TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                                                                                                      PRESENCE mandatory
}
RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID
                                    RL-Set-ID,
    individualcause
                                    Cause
                                                OPTIONAL,
```

```
iE-Extensions
                                 ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-Successful-InformationRespList-DM-Fail
                                                        ::= SEOUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
Successful-InformationResp-DM-Fail-IEs} }
RL-Set-Successful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
     ID id-RL-Set-Successful-InformationItem-DM-Fail
                                                        CRITICALITY ignore TYPE RL-Set-Successful-InformationItem-DM-Fail
                                                                                                                        PRESENCE mandatory
RL-Set-Successful-InformationItem-DM-Fail ::= SEQUENCE {
   rL-Set-ID
                                 RL-Set-ID,
   dedicatedMeasurementValue
                                 DedicatedMeasurementValue,
   CFN
                                                            OPTIONAL.
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     -- DEDICATED MEASUREMENT REPORT
  *****************
DedicatedMeasurementReport ::= SEQUENCE {
                                                           {{DedicatedMeasurementReport-IEs}},
   protocolIEs
                                 ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
                                                                                                                   OPTIONAL,
DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
                                     CRITICALITY ignore TYPE MeasurementID
     ID id-MeasurementID
                                                                                      PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory },
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
   rLs
                          RL-DM-Rprt,
   rLS
                          RL-Set-DM-Rprt,
   allRL
                          RL-DM-Rprt,
                          RL-Set-DM-Rprt,
   allRLS
```

```
RL-DM-Rprt ::= SEQUENCE {
   rL-InformationList-DM-Rprt
                                    RL-InformationList-DM-Rprt,
                                    ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rprt ::= SEOUENCE {
   rL-Set-InformationList-DM-Rprt RL-Set-InformationList-DM-Rprt,
                                    ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs} } OPTIONAL,
    . . .
RL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }
RL-InformationList-DM-Rprt
RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt
                                            CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt
                                                                                                     PRESENCE mandatory }
RL-InformationItem-DM-Rprt ::= SEQUENCE {
   rL-ID
                                RL-ID,
   dPCH-ID
                                DPCH-ID
                                                    OPTIONAL.
    dedicatedMeasurementValueInformation
                                            DedicatedMeasurementValueInformation,
                                    ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rprt
                                    CRITICALITY reject
                                                                    EXTENSION HS-SICH-ID
                                                                                                PRESENCE optional },
   -- TDD only
RL-Set-InformationList-DM-Rprt
                                               ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rprt-
IEs} }
RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt
                                                CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt
                                                                                                              PRESENCE mandatory }
RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
```

```
rL-Set-ID
                               RL-Set-ID.
   dedicatedMeasurementValueInformation
                                     DedicatedMeasurementValueInformation,
   iE-Extensions
                               ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- DEDICATED MEASUREMENT TERMINATION REQUEST
__ ********************
DedicatedMeasurementTerminationRequest ::= SEQUENCE {
                                                       {{DedicatedMeasurementTerminationRequest-IEs}},
   protocolIEs
                               ProtocolIE-Container
   protocolExtensions
                               ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}
                                                                                                                       OPTIONAL,
DedicatedMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-MeasurementID
                                  CRITICALITY ignore TYPE MeasurementID
                                                                                 PRESENCE mandatory },
DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- DEDICATED MEASUREMENT FAILURE INDICATION
  *****************
DedicatedMeasurementFailureIndication ::= SEQUENCE {
                                                       {{DedicatedMeasurementFailureIndication-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL,
DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-MeasurementID
                                  CRITICALITY ignore TYPE MeasurementID
                                                                                 PRESENCE mandatory } |
   { ID id-Cause
                              CRITICALITY ignore TYPE Cause
                                                                          PRESENCE mandatory },
```

```
DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DedicatedMeasurementObjectType-DM-Fail-Ind ::= CHOICE {
                         RL-DM-Fail-Ind,
   rLS
                         RL-Set-DM-Fail-Ind,
   allRL
                         RL-DM-Fail-Ind,
   allRLS
                         RL-Set-DM-Fail-Ind,
RL-DM-Fail-Ind ::= SEQUENCE {
   rL-unsuccessful-InformationRespList-DM-Fail-Ind
                                                   RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
                                                   ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail-Ind ::= SEOUENCE {
   rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind
                                                       RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
                                                       ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                   ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
RL-Unsuccessful-InformationRespList-DM-Fail-Ind
InformationResp-DM-Fail-Ind-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                     CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                                                                                          PRESENCE mandatory
RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
   rL-ID
                             RL-ID,
   individualcause
                             Cause
                                        OPTIONAL,
   iE-Extensions
                             ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind
                                                       ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-Ind-IEs} }
RL-Set-Unsuccessful-InformationResp-DM-Fail-Ind-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind
                                                       CRITICALITY ignore TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind PRESENCE
mandatory }
RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
   rL-Set-ID
                               RL-Set-ID,
   individualcause
                               Cause
                                         OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs} } OPTIONAL,
RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
  CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
                                                       {{CommonTransportChannelResourcesReleaseRequest-IEs}},
   protocolIEs
                               ProtocolIE-Container
   protocolExtensions
                               ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
                                                                                                                           OPTIONAL,
CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-D-RNTI
                               CRITICALITY ignore TYPE D-RNTI
                                                                         PRESENCE mandatory },
   . . .
CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::=
    -- COMMON TRANSPORT CHANNEL RESOURCES REQUEST
  *****************
CommonTransportChannelResourcesRequest ::= SEQUENCE
   protocolIEs
                               ProtocolIE-Container
                                                       {{CommonTransportChannelResourcesRequest-IEs}},
```

```
protocolExtensions
                                  ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}
                                                                                                                       OPTIONAL,
CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                  CRITICALITY reject TYPE D-RNTI
                                                                                PRESENCE mandatory }
     ID id-C-ID
                                  CRITICALITY reject TYPE C-ID
                                                                                PRESENCE optional
     ID id-TransportBearerRequestIndicator
                                              CRITICALITY reject TYPE TransportBearerRequestIndicator
                                                                                                         PRESENCE mandatory } |
    { ID id-TransportBearerID
                                      CRITICALITY reject TYPE TransportBearerID
                                                                                            PRESENCE mandatory },
    . . .
CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                  CRITICALITY ignore
                                                                             EXTENSION Permanent-NAS-UE-Identity
                                                                                                                 PRESENCE optional } |
    { ID id-BindingID
                                          CRITICALITY ignore
                                                                 EXTENSION
                                                                            BindingID PRESENCE
                                                                                                               optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                          CRITICALITY ignore
                                                                                                                 optional },
                                                                 EXTENSION
                                                                            TransportLayerAddress
                                                                                                      PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
     COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
     ****************
CommonTransportChannelResourcesResponseFDD ::= SEOUENCE {
   protocolIEs
                                                            {{CommonTransportChannelResourcesResponseFDD-IEs}},
                                  ProtocolIE-Container
                                  ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                          OPTIONAL,
CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                PRESENCE mandatory
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                                PRESENCE optional
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
                                                                                                                                        PRESENCE
mandatory } |
     ID id-TransportLayerAddress
                                          CRITICALITY ignore TYPE TransportLayerAddress
                                                                                              PRESENCE optional } |
     ID id-BindingID
                                  CRITICALITY ignore TYPE BindingID
                                                                                    PRESENCE optional }
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
    . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-FlowControlInformation
                                  FACH-FlowControlInformation-CTCH-ResourceRspFDD,
   iE-Extensions
                                  ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID
                              CRITICALITY ignore
                                                     EXTENSION C-ID
                                                                            PRESENCE mandatory },
    . . .
   ******************
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
  ****************
CommonTransportChannelResourcesResponseTDD ::= SEQUENCE {
                                                             {{CommonTransportChannelResourcesResponseTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                  ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}
   protocolExtensions
                                                                                                                          OPTIONAL,
CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                PRESENCE mandatory
     ID id-C-RNTI
                                                                                PRESENCE optional }
                                  CRITICALITY ignore TYPE C-RNTI
    { ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
                                                                                                                                        PRESENCE
mandatory } |
     ID id-TransportLayerAddress
                                          CRITICALITY ignore TYPE TransportLayerAddress
                                                                                             PRESENCE optional } |
     ID id-BindingID
                                  CRITICALITY ignore TYPE BindingID
                                                                                    PRESENCE optional }
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
    . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD ::= SEQUENCE {
    fACH-FlowControlInformation
                                  FACH-FlowControlInformation-CTCH-ResourceRspTDD,
   iE-Extensions
                                  ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
FACH-FlowControlInformation-CTCH-ResourceRspTDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE
                                                               FACH-FlowControlInformation PRESENCE mandatory }
```

```
CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-C-ID
                            CRITICALITY ignore
                                                 EXTENSION C-ID
                                                                      PRESENCE mandatory },
   . . .
    *****************
  COMMON TRANSPORT CHANNEL RESOURCES FAILURE
  ****************
CommonTransportChannelResourcesFailure ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{CommonTransportChannelResourcesFailure-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}
                                                                                                             OPTIONAL,
   . . .
CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                               CRITICALITY ignore TYPE S-RNTI
                                                                          PRESENCE mandatory }
     ID id-Cause
                               CRITICALITY ignore TYPE Cause
                                                                          PRESENCE mandatory }
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
   { ID id-CriticalityDiagnostics
                                                                                      PRESENCE optional },
CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
  COMPRESSED MODE COMMAND
     CompressedModeCommand ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{CompressedModeCommand-IEs}},
                               ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}
   protocolExtensions
                                                                                                        OPTIONAL,
   . . .
CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-Active-Pattern-Sequence-Information
                                             CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                                      PRESENCE mandatory },
   . . .
CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
__ *********************
-- ERROR INDICATION
__ ********************
ErrorIndication ::= SEQUENCE {
                                                         {{ErrorIndication-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{ErrorIndication-Extensions}}
                                                                                                     OPTIONAL,
ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-Cause
                                CRITICALITY ignore TYPE Cause
                                                                           PRESENCE optional |
   { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                        PRESENCE optional },
ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-S-RNTI
                                CRITICALITY ignore EXTENSION S-RNTI
                                                                                   PRESENCE optional } |
   { ID id-D-RNTI
                                CRITICALITY ignore EXTENSION D-RNTI
                                                                                   PRESENCE optional },
    ************************
-- COMMON MEASUREMENT INITIATION REQUEST
  CommonMeasurementInitiationReguest ::= SEOUENCE {
                        ProtocolIE-Container
                                              {{CommonMeasurementInitiationRequest-IEs}},
   protocolIEs
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}
                                                                                                   OPTIONAL,
CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-MeasurementID
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                      MeasurementID
                                                                                                                     PRESENCE mandatory
   { ID
          id-CommonMeasurementObjectType-CM-Rgst
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       CommonMeasurementObjectType-CM-Rgst
                                                                                                                           PRESENCE
   mandatory } |
   -- This IE represents both the Common Measurement Object Type IE and the choice based on the Common Measurement Object Type
   -- as described in the tabular message format in subclause 9.1.
          id-CommonMeasurementType
                                                                                                                      PRESENCE mandatory
   { ID
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                      CommonMeasurementType
   { ID
          id-MeasurementFilterCoefficient
                                                                                       MeasurementFilterCoefficient
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                                                      PRESENCE optional } |
   -- UTRAN only
   { ID
          id-ReportCharacteristics
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       ReportCharacteristics
                                                                                                                      PRESENCE mandatory
          id-SFNReportingIndicator
                                                                               TYPE
                                                                                       FNReportingIndicator
                                                                                                                      PRESENCE mandatory
    ID
                                                      CRITICALITY reject
```

```
*****************
CommonMeasurementInitiationResponse ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{CommonMeasurementInitiationResponse-IEs}},
                          ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}
   protocolExtensions
                                                                                                      OPTIONAL.
CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                                    CRITICALITY ignore
                                                                              TYPE
                                                                                      MeasurementID
                                                                                                                         PRESENCE mandatory
    { ID
           id-CommonMeasurementObjectType-CM-Rsp
                                                    CRITICALITY ignore
                                                                              TYPE
                                                                                      CommonMeasurementObjectType-CM-Rsp
                                                                                                                          PRESENCE optional } |
    { ID
          id-SFN
                                                    CRITICALITY ignore
                                                                              TYPE
                                                                                                                         PRESENCE optional } |
   -- UTRAN only
   { ID
          id-CriticalityDiagnostics
                                                    CRITICALITY ignore
                                                                              TYPE
                                                                                      CriticalityDiagnostics
                                                                                                                         PRESENCE optional } |
          id-CommonMeasurementAccuracy
                                                        CRITICALITY reject
                                                                                  TYPE
                                                                                        CommonMeasurementAccuracy
                                                                                                                         PRESENCE optional
    { ID
   -- UTRAN only
CommonMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
                             Cell-CM-Rsp,
   cell
Cell-CM-Rsp ::= SEQUENCE {
   commonMeasurementValue
                                             CommonMeasurementValue,
                                            ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs} }
   iE-Extensions
                                                                                                      OPTIONAL,
CellItem-CM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- COMMON MEASUREMENT INITIATION FAILURE
__ *********************************
CommonMeasurementInitiationFailure ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                {{CommonMeasurementInitiationFailure-IEs}},
                         ProtocolExtensionContainer {{CommonMeasurementInitiationFailure-Extensions}}
                                                                                                      OPTIONAL,
   protocolExtensions
```

```
CommonMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                         CRITICALITY
                                                        ignore
                                                                       TYPE
                                                                              MeasurementID
                                                                                                      PRESENCE mandatory
     ID
          id-Cause
                                         CRITICALITY
                                                        ignore
                                                                       TYPE
                                                                              Cause
                                                                                                      PRESENCE mandatory } |
          id-CriticalityDiagnostics
                                         CRITICALITY
                                                                       TYPE
                                                                              CriticalityDiagnostics
                                                                                                      PRESENCE optional },
    { ID
                                                        ignore
    . . .
CommonMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   *************
-- COMMON MEASUREMENT REPORT
  *****************
CommonMeasurementReport ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                 {{CommonMeasurementReport-IEs}},
                         ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}
                                                                                           OPTIONAL,
   protocolExtensions
CommonMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
     ID
           id-MeasurementID
                                                    CRITICALITY ignore
                                                                              TYPE
                                                                                      Measurement.ID
                                                                                                                    PRESENCE mandatory }
     ID
          id-CommonMeasurementObjectType-CM-Rprt
                                                    CRITICALITY ignore
                                                                                      CommonMeasurementObjectType-CM-Rprt PRESENCE mandatory
                                                                              TYPE
    } |
                                                    CRITICALITY ignore
                                                                                                                 PRESENCE optional },
   { ID id-SFN
                                                                              TYPE
                                                                                      SFN
   -- UTRAN only
CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
   cell
                                 Cell-CM-Rprt,
   . . .
Cell-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
                                 ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}
   iE-Extensions
                                                                                           OPTIONAL,
   . . .
CellItem-CM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- COMMON MEASUREMENT TERMINATION REQUEST
  *****************
CommonMeasurementTerminationRequest ::= SEQUENCE {
                     ProtocolIE-Container
   protocolIEs
                                         {{CommonMeasurementTerminationRequest-IEs}},
  protocolExtensions
                     ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}
CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
         id-MeasurementID
                                                            TYPE
                                                                                  PRESENCE mandatory },
   { ID
                               CRITICALITY
                                                                  MeasurementID
   . . .
CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *******************
-- COMMON MEASUREMENT FAILURE INDICATION
  CommonMeasurementFailureIndication ::= SEOUENCE {
                     ProtocolIE-Container
                                         {{CommonMeasurementFailureIndication-IEs}},
   protocolIEs
   protocolExtensions
                         ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}
                                                                                              OPTIONAL,
CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
         id-MeasurementID
                               CRITICALITY ignore
                                                      TYPE
                                                                             PRESENCE mandatory
                                                            MeasurementID
   { ID
                               CRITICALITY ignore
                                                                             PRESENCE mandatory
         id-Cause
                                                      TYPE
                                                            Cause
   . . .
CommonMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   -- INFORMATION EXCHANGE INITIATION REQUEST
__ **********************
```

```
InformationExchangeInitiationRequest ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{InformationExchangeInitiationRequest-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}
                                                                                                          OPTIONAL,
    . . .
InformationExchangeInitiationRequest-IES RNSAP-PROTOCOL-IES ::= {
           id-InformationExchangeID
                                                         CRITICALITY reject
                                                                                TYPE
                                                                                       InformationExchangeID
                                                                                                                         PRESENCE mandatory
    { ID
           id-InformationExchangeObjectType-InfEx-Rqst
                                                         CRITICALITY reject
                                                                                TYPE
                                                                                       InformationExchangeObjectType-InfEx-Rqst
                                                                                                                                 PRESENCE
   mandatory } |
   -- This IE represents both the Information Exchange Object Type IE and the choice based on the Information Exchange Object Type
    -- as described in the tabular message format in subclause 9.1.
     ID
           id-InformationType
                                                         CRITICALITY reject
                                                                                TYPE
                                                                                       InformationType
                                                                                                                         PRESENCE mandatory
    { ID
           id-InformationReportCharacteristics
                                                         CRITICALITY reject
                                                                                TYPE
                                                                                       InformationReportCharacteristics
                                                                                                                         PRESENCE mandatory
InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
   cell
                                  Cell-InfEx-Rgst,
    . . .
Cell-InfEx-Rgst ::= SEQUENCE {
   c-ID
                                  C-ID, --May be a GERAN cell identifier
                                  ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }
   iE-Extensions
                                                                                               OPTIONAL,
CellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- INFORMATION EXCHANGE INITIATION RESPONSE
        *************
InformationExchangeInitiationResponse ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{InformationExchangeInitiationResponse-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}
                                                                                                          OPTIONAL,
```

```
InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
           id-InformationExchangeID
                                                         CRITICALITY ignore
                                                                                    TYPE
                                                                                            InformationExchangeID
                                                                                                                            PRESENCE mandatory
    { ID
           id-InformationExchangeObjectType-InfEx-Rsp
                                                         CRITICALITY ignore
                                                                                    TYPE
                                                                                            InformationExchangeObjectType-InfEx-Rsp
                                                                                                                                     PRESENCE
    optional
           id-CriticalityDiagnostics
                                                                                    TYPE
                                                                                            CriticalityDiagnostics
                                                                                                                            PRESENCE optional },
    { ID
                                                         CRITICALITY ignore
    . . .
InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
}
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell
                              Cell-InfEx-Rsp,
    . . .
Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue
                                  RequestedDataValue,
   iE-Extensions
                                  ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }
                                                                                                OPTIONAL,
CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
       -- INFORMATION EXCHANGE INITIATION FAILURE
__ *********************************
InformationExchangeInitiationFailure ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{InformationExchangeInitiationFailure-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}
                                                                                                           OPTIONAL,
InformationExchangeInitiationFailure-IES RNSAP-PROTOCOL-IES ::= {
           id-InformationExchangeID
     ID
                                                 CRITICALITY
                                                                                TYPE
                                                                                        InformationExchangeID
                                                                                                                       PRESENCE mandatory
                                                                 ignore
     ID
           id-Cause
                                                  CRITICALITY
                                                                 ignore
                                                                                TYPE
                                                                                        Cause
                                                                                                                       PRESENCE mandatory
     ID
           id-CriticalityDiagnostics
                                                                                TYPE
                                                                                        CriticalityDiagnostics
                                                                                                                       PRESENCE optional },
                                                  CRITICALITY
                                                                 ignore
InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

Release 5

```
-- INFORMATION REPORT
__ ********************
InformationReport ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{InformationReport-IEs}},
                         ProtocolExtensionContainer {{InformationReport-Extensions}}
   protocolExtensions
                                                                                        OPTIONAL,
InformationReport-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-InformationExchangeID
                                                       CRITICALITY ignore
                                                                                 TYPE
                                                                                        InformationExchangeID
                                                                                                                                PRESENCE
   mandatory }|
          id-InformationExchangeObjectType-InfEx-Rprt
                                                       CRITICALITY ignore
                                                                                 TYPE
                                                                                        InformationExchangeObjectType-InfEx-Rprt
                                                                                                                                PRESENCE
   mandatory },
   . . .
InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
   cell
                                 Cell-InfEx-Rprt,
   . . .
Cell-InfEx-Rprt ::= SEOUENCE {
   requestedDataValueInformation
                                 RequestedDataValueInformation,
   iE-Extensions
                                 ProtocolExtensionContainer {{ CellItem-InfEx-Rprt-ExtIEs }}
                                                                                             OPTIONAL,
CellItem-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
__ ***********************************
-- INFORMATION EXCHANGE TERMINATION REQUEST
__ ********************
InformationExchangeTerminationRequest ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{InformationExchangeTerminationRequest-IEs}},
   protocolExtensions
                         ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
                                                                                                       OPTIONAL,
```

```
InformationExchangeTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-InformationExchangeID
                                          CRITICALITY
                                                        ignore
                                                                          TYPE
                                                                                 InformationExchangeID
                                                                                                           PRESENCE mandatory },
   . . .
InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- INFORMATION EXCHANGE FAILURE INDICATION
  ****************
InformationExchangeFailureIndication ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{InformationExchangeFailureIndication-IEs}},
                            ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
InformationExchangeFailureIndication-IES RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                          CRITICALITY ignore
                                                                  TYPE
                                                                          InformationExchangeID
                                                                                                   PRESENCE mandatory
    { ID
          id-Cause
                                          CRITICALITY ignore
                                                                                                   PRESENCE mandatory
                                                                   TYPE
   . . .
InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    **************
-- RESET REQUEST
  *****************
ResetRequest ::= SEQUENCE {
                                              {{ResetRequest-IEs}},
                        ProtocolIE-Container
   protocolIEs
                        ProtocolExtensionContainer {{ResetRequest-Extensions}}
   protocolExtensions
                                                                             OPTIONAL,
ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID
                            CRITICALITY reject TYPE RNC-ID
                                                            PRESENCE mandatory}
   { ID id-ResetIndicator
                            CRITICALITY reject
                                                TYPE ResetIndicator
                                                                          PRESENCE
                                                                                    mandatory},
```

```
ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
ResetIndicator ::= CHOICE {
                    ContextList-Reset,
    context
    all-contexts
                        NULL,
    . . . ,
    contextGroup
                    ContextGroupList-Reset
ContextList-Reset ::= SEQUENCE {
    contextInfoList-Reset
                                ContextInfoList-Reset,
   iE-Extensions
                                            ProtocolExtensionContainer { {ContextItem-Reset-ExtIEs} }
                                                                                                            OPTIONAL,
    . . .
ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}
ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextInfoItem-Reset
                                                                                                 PRESENCE mandatory }
                                        CRITICALITY reject
                                                                 TYPE ContextInfoItem-Reset
ContextInfoItem-Reset ::= SEQUENCE {
    contextType-Reset
                                ContextType-Reset,
    iE-Extensions
                                ProtocolExtensionContainer { { ContextInfoItem-Reset-ExtIEs} } OPTIONAL,
    . . .
ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextType-Reset ::= CHOICE {
    sRNTI
                    S-RNTI,
    dRNTI
                    D-RNTI,
    . . .
ContextGroupList-Reset ::= SEQUENCE
    contextGroupInfoList-Reset
                                    ContextGroupInfoList-Reset,
                                    ProtocolExtensionContainer { (ContextGroupItem-Reset-ExtIEs) }
    iE-Extensions
                                                                                                         OPTIONAL,
    . . .
```

```
ContextGroupItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextGroupInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContextGroup)) OF ProtocolIE-Single-Container {{ ContextGroupInfoItemIE-Reset }}
ContextGroupInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
   {ID id-ContextGroupInfoItem-Reset
                                      CRITICALITY reject
                                                           TYPE ContextGroupInfoItem-Reset
                                                                                          PRESENCE mandatory }
ContextGroupInfoItem-Reset ::= SEQUENCE {
   s-RNTI-Group
                            S-RNTI-Group,
   iE-Extensions
                           ProtocolExtensionContainer { { ContextGroupInfoItem-Reset-ExtIEs} } 
                                                                                          OPTIONAL,
   . . .
ContextGroupInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  -- RESET RESPONSE
  ResetResponse ::= SEQUENCE {
                                             {{ResetResponse-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{ResetResponse-Extensions}}
                                                                                   OPTIONAL,
   protocolExtensions
ResetResponse-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RNC-ID
                            CRITICALITY ignore TYPE RNC-ID
                                                           PRESENCE mandatory}
   { ID id-CriticalityDiagnostics
                                  CRITICALITY
                                                 ignore
                                                                  CriticalityDiagnostics
                                                                                          PRESENCE optional },
   . . .
ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *******************
-- RADIO LINK ACTIVATION COMMAND FDD
  *****************
RadioLinkActivationCommandFDD ::= SEQUENCE {
                                             {{RadioLinkActivationCommandFDD-IEs}},
   protocolIEs
                        ProtocolIE-Container
   protocolExtensions
                        ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}
                                                                                             OPTIONAL,
```

```
RadioLinkActivationCommandFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-DelayedActivationList-RL-ActivationCmdFDD
                                                   CRITICALITY reject TYPE
                                                                            DelayedActivationInformationList-RL-ActivationCmdFDD
   PRESENCE
             mandatory },
   . . .
RadioLinkActivationCommandFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
}
DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container
   { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdFDD-IEs RNSAP-PROTOCOL-IES ::= {
   optional
DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
   delayed-activation-update
                           DelayedActivationUpdate,
                           ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RADIO LINK ACTIVATION COMMAND TDD
  *****************
RadioLinkActivationCommandTDD ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{RadioLinkActivationCommandTDD-IEs}},
   protocolExtensions
                       ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}}
                                                                                            OPTIONAL,
RadioLinkActivationCommandTDD-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-DelayedActivationList-RL-ActivationCmdTDD
                                                   CRITICALITY reject TYPE
                                                                            DelayedActivationInformationList-RL-ActivationCmdTDD
   PRESENCE
             mandatory },
RadioLinkActivationCommandTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdTDD-IES RNSAP-PROTOCOL-IES ::= {
    optional
DelayedActivationInformation-RL-ActivationCmdTDD ::= SEOUENCE {
                            RL-ID.
   delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                            ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ***************
-- GERAN UPLINK SIGNALLING TRANSFER INDICATION
  *****************
GERANUplinkSignallingTransferIndication ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{GERANUplinkSignallingTransferIndication-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{GERANUplinkSignallingTransferIndication-Extensions}} OPTIONAL,
GERANUplinkSignallingTransferIndication-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-UC-ID
                                   CRITICALITY ignore TYPE UC-ID
                                                                                    PRESENCE mandatory
   -- UC-Id may be GERAN cell identifier.
   { ID id-SAI
                                                                                    PRESENCE mandatory
                                   CRITICALITY ignore TYPE SAI
     ID id-S-RNTI
                                   CRITICALITY ignore TYPE S-RNTI
                                                                                    PRESENCE mandatory
    ID id-D-RNTI
                                   CRITICALITY ignore TYPE D-RNTI
                                                                                    PRESENCE optional
     ID id-L3-Information
                                   CRITICALITY ignore TYPE L3-Information
                                                                                    PRESENCE mandatory
     ID id-CN-PS-DomainIdentifier
                                   CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                    PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                                                                    PRESENCE optional
                                   CRITICALITY ignore TYPE CN-CS-DomainIdentifier
   { ID id-URA-Information
                                   CRITICALITY ignore TYPE URA-Information
                                                                                    PRESENCE optional
   -- URA information may be GRA information
GERANUplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
  ******************
RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
   protocolIEs
                       ProtocolIE-Container
                                           {{RadioLinkParameterUpdateIndicationFDD-IEs}},
   protocolExtensions
                       ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationFDD-Extensions}}
                                                                                                   OPTIONAL,
RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
         id-HSDSCH-FDD-Update-Information
                                                         CRITICALITY reject TYPE
                                                                                HSDSCH-FDD-Update-Information
                                                                                                                PRESENCE
   optional}|
   { ID
         id-RL-ParameterUpdateIndicationFDD-RL-InformationList CRITICALITY reject TYPE
                                                                                RL-ParameterUpdateIndicationFDD-RL-InformationList
   PRESENCE optional },
   . . .
RL-ParameterUpdateIndicationFDD-RL-InformationList ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { { RL-
ParameterUpdateIndicationFDD-RL-InformationList-IEs} }
RL-ParameterUpdateIndicationFDD-RL-InformationList-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-ParameterUpdateIndicationFDD-RL-Information-Item CRITICALITY reject TYPE RL-ParameterUpdateIndicationFDD-RL-Information-Item
   PRESENCE mandatory }
RL-ParameterUpdateIndicationFDD-RL-Information-Item::= SEQUENCE {
                                 RL-ID,
                                 Phase-Reference-Update-Indicator
   phase-Reference-Update-Indicator
                                                               OPTIONAL,
   iE-Extensions
                                 RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
RadioLinkParameterUpdateIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ******************
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
  ******************
RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
```

```
protocolIEs
                        ProtocolIE-Container
                                              {{RadioLinkParameterUpdateIndicationTDD-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationTDD-Extensions}}
                                                                                                         OPTIONAL,
RadioLinkParameterUpdateIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
          id-HSDSCH-TDD-Update-Information
                                              CRITICALITY
                                                            reject
                                                                       TYPE
                                                                              HSDSCH-TDD-Update-Information
                                                                                                              PRESENCE optional },
   . . .
RadioLinkParameterUpdateIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- PRIVATE MESSAGE
__ ********************
PrivateMessage ::= SEOUENCE {
                 PrivateIE-Container {{PrivateMessage-IEs}},
   privateIEs
PrivateMessage-IEs RNSAP-PRIVATE-IES ::= {
END
```

9.3.4 Information Element Definitions

```
maxFACHCountPlus1,
maxIBSEG,
maxNoOfDSCHs,
maxNoOfDSCHs-1,
maxNoOfUSCHs,
maxNoTFCIGroups,
maxNoCodeGroups,
maxNrOfDCHs,
maxNrOfDL-Codes,
maxNrOfDLTs,
maxNrOfDLTsLCR,
maxNrOfDPCHs,
maxNrOfDPCHsLCR,
maxNrOfErrors,
maxNrOfFDDNeighboursPerRNC,
maxNrOfMACcshSDU-Length,
maxNrOfNeighbouringRNCs,
maxNrOfTDDNeighboursPerRNC,
maxNrOfLCRTDDNeighboursPerRNC,
maxNrOfTS,
maxNrOfULTs,
maxNrOfULTsLCR,
maxNrOfGSMNeighboursPerRNC,
maxRateMatching,
maxNrOfPoints,
maxNoOfRB,
maxNrOfRLs,
maxNrOfTFCs,
maxNrOfTFs,
maxCTFC,
maxRNCinURA-1,
maxNrOfSCCPCHs,
maxTFCI1Combs,
maxTFCI2Combs,
maxTFCI2Combs-1,
maxTGPS,
maxTTI-Count,
maxNoGPSTypes,
maxNoSat,
maxNrOfSNAs,
maxNrOfHARQProc,
maxNrOfHSSCCHCodes,
maxNrOfMACdFlows,
maxNrOfMACdFlows-1,
maxNrOfPDUIndexes,
maxNrOfPDUIndexes-1,
maxNrOfPrioOueues,
maxNrOfPrioQueues-1,
id-Allowed-Rate-Information,
id-AntennaColocationIndicator,
```

```
id-BindingID,
id-Cell-Capacity-Class-Value,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
id-CoverageIndicator,
id-DPC-Mode-Change-SupportIndicator,
id-DSCH-Specific-FDD-Additional-List,
id-GERAN-Cell-Capability,
id-GERAN-Classmark,
id-Guaranteed-Rate-Information,
id-HCS-Prio,
id-Load-Value,
id-Load-Value-IncrDecrThres,
id-Neighbouring-GSM-CellInformation,
id-Neighbouring-UMTS-CellInformationItem,
id-neighbouring-LCR-TDD-CellInformation,
id-NRT-Load-Information-Value,
id-NRT-Load-Information-Value-IncrDecrThres,
id-OnModification.
id-Received-Total-Wideband-Power-Value,
id-Received-Total-Wideband-Power-Value-IncrDecrThres,
id-RT-Load-Value.
id-RT-Load-Value-IncrDecrThres,
id-SFNSFNMeasurementThresholdInformation,
id-SNA-Information,
id-TrafficClass.
id-Transmitted-Carrier-Power-Value,
id-Transmitted-Carrier-Power-Value-IncrDecrThres,
id-TUTRANGPSMeasurementThresholdInformation,
id-UL-Timeslot-ISCP-Value,
id-UL-Timeslot-ISCP-Value-IncrDecrThres,
maxNrOfLevels,
maxNrOfMeasNCell.
maxNrOfMeasNCell-1,
id-MessageStructure,
id-EnhancedDSCHPC,
id-RestrictionStateIndicator,
id-Rx-Timing-Deviation-Value-LCR,
id-TransportLayerAddress,
id-TypeOfError,
id-Angle-Of-Arrival-Value-LCR,
id-IPDL-TDD-ParametersLCR,
id-DSCH-InitialWindowSize.
id-Maximum-DL-Power-TimeslotLCR-InformationItem,
id-Minimum-DL-Power-TimeslotLCR-InformationItem,
id-HS-SICH-Reception-Ouality,
id-HS-SICH-Reception-Quality-Measurement-Value,
id-ExtendedGSMCellIndividualOffset,
id-Unidirectional-DCH-Indicator
```

```
FROM RNSAP-Constants
    Criticality,
   ProcedureID,
   ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes
    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
   RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;
-- A
AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN
    transmission-Gap-Pattern-Sequence-Status
                                                Transmission-Gap-Pattern-Sequence-Status-List
                                                                                                   OPTIONAL,
                        ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Active-Pattern-Sequence-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
AdjustmentPeriod
                            ::= INTEGER(1..256)
-- Unit Frame
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                                PriorityLevel,
   pre-emptionCapability
                                Pre-emptionCapability,
   pre-emptionVulnerability
                                Pre-emptionVulnerability,
                            ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    iE-Extensions
AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate-Information
                            ::= SEQUENCE {
    allowed-UL-Rate
                            Allowed-Rate OPTIONAL,
```

```
456
    allowed-DL-Rate
                           Allowed-Rate OPTIONAL,
   iE-Extensions
                           ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate
                      ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
AllowedQueuingTime
                           ::= INTEGER (1..60)
-- seconds
AlphaValue
                           ::= INTEGER (0..8)
-- Actual value = Alpha / 8
Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
    aOA-LCR
                           AOA-LCR,
   aOA-LCR-Accuracy-Class AOA-LCR-Accuracy-Class,
   iE-Extensions
                           ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
Angle-Of-Arrival-Value-LCR-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD
AOA-LCR-Accuracy-Class ::= ENUMERATED {a,b,c,d,e,f,g,h,...}
AntennaColocationIndicator ::= ENUMERATED {
   co-located,
    . . .
BadSatellites ::= SEQUENCE {
   badSatelliteInformation
                                SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
           badSAT-ID
                                        SAT-ID,
                                        ProtocolExtensionContainer { { BadSatelliteInformation-ExtIEs} }
           iE-Extensions
                                                                                                              OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { BadSatellites-ExtIEs} }
                                                                                            OPTIONAL,
```

```
BadSatelliteInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
BadSatellites-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Band-Indicator ::= ENUMERATED {
   dcs1800Band,
   pcs1900Band,
BCC ::= BIT STRING (SIZE (3))
BCCH-ARFCN ::= INTEGER (0..1023)
BetaCD ::= INTEGER (0..15)
                      ::= OCTET STRING (SIZE (1..4,...))
-- If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2.
BLER
                      ::=INTEGER(-63..0)
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER
SCTD-Indicator ::= ENUMERATED {
   active,
   inactive
BSIC ::= SEQUENCE {
   nCC
               NCC,
   bCC
               BCC
BurstModeParameters ::= SEQUENCE {
   burstStart
                 INTEGER (0..15),
   burstLength
                   INTEGER (10..25),
   burstFreq
                   INTEGER (1..16),
                               ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }
   iE-Extensions
                                                                                                 OPTIONAL,
BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- C
```

```
Cause ::= CHOICE {
   radioNetwork
                        CauseRadioNetwork,
    transport
                        CauseTransport,
   protocol
                        CauseProtocol,
    misc
                        CauseMisc.
CauseMisc ::= ENUMERATED {
    control-processing-overload,
   hardware-failure,
    om-intervention,
   not-enough-user-plane-processing-resources,
   unspecified,
    . . .
CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
CauseRadioNetwork ::= ENUMERATED {
   unknown-C-ID,
    cell-not-available,
   power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
   ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    combining-not-supported,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    requested-tx-diversity-mode-not-supported,
    measurement-temporaily-not-available,
    unspecified,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    dedicated-transport-channel-type-not-supported,
    dl-shared-channel-type-not-supported,
    ul-shared-channel-type-not-supported,
    common-transport-channel-type-not-supported,
```

```
ul-spreading-factor-not-supported,
    dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b,
    rl-already-activated-or-alocated,
    number-of-UL-codes-not-supported,
    cell-reserved-for-operator-use,
    dpc-mode-change-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    power-balancing-status-not-compatible,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported,
    unknown-RNTI
CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    . . .
CellCapabilityContainer-FDD ::= BIT STRING (SIZE (32))
-- First bit: Flexible Hard Split Support Indicator
-- Second bit: Delayed Activation Support Indicator
-- Third bit: HS-DSCH Support Indicator
-- Fourth bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD-LCR ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
C-ID
                        ::= INTEGER (0..65535)
CCTrCH-ID
                        ::= INTEGER (0..15)
Cell-Capacity-Class-Value ::= SEOUENCE {
        uplinkCellCapacityClassValue
                                            INTEGER(1..100,...),
        downlinkCellCapacityClassValue
                                            INTEGER(1..100,...)
```

```
CellIndividualOffset
                      ::= INTEGER (-20..20)
CellParameterID
                           ::= INTEGER (0..127,...)
CFN
                   ::= INTEGER (0..255)
CGI ::= SEQUENCE {
   lai
                SEQUENCE {
       pLMN-Identity PLMN-Identity,
                        LAC,
                                ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
       iE-Extensions
    сI
                    CI,
                           ProtocolExtensionContainer { (CGI-ExtIEs) } OPTIONAL
   iE-Extensions
LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ChannelCodingType ::= ENUMERATED {
   no-codingTDD,
   convolutional-coding,
    turbo-coding,
    . . .
ChipOffset
                       ::= INTEGER (0..38399)
CI
                   ::= OCTET STRING (SIZE (2))
ClosedLoopModel-SupportIndicator
                                   ::= ENUMERATED {
    closedLoop-Model-Supported,
    closedLoop-Model-not-Supported
ClosedLoopMode2-SupportIndicator
                                   ::= ENUMERATED {
    closedLoop-Mode2-Supported,
    closedLoop-Mode2-not-Supported
Closedlooptimingadjustmentmode ::= ENUMERATED {
   adj-1-slot,
    adj-2-slot,
```

```
CodeNumber ::= INTEGER (0..maxCodeNumComp-1)
CodingRate ::= ENUMERATED {
   half,
    third,
CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass
                                            TUTRANGPSAccuracyClass,
CommonMeasurementType ::= ENUMERATED {
   uTRAN-GPS-timing-of-cell-frames-for-UE-Positioning,
   sFN-SFN-observerd-time-difference,
   load,
    transmitted-carrier-power,
    received-total-wide-band-power,
   uplink-timeslot-iscp,
    rT-load,
   nRT-load-Information
-- For measurements on the Iur-g interface, only load, RT Load and NRT Load information are requested.
CommonMeasurementValue ::= CHOICE {
    tUTRANGPSMeasurementValueInformation
                                            TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation
                                            SFNSFNMeasurementValueInformation,
   loadValue
                                        LoadValue,
    transmittedCarrierPowerValue
                                        INTEGER(0..100),
    receivedTotalWideBandPowerValue
                                        INTEGER(0..621),
    uplinkTimeslotISCPValue
                                        UL-TimeslotISCP,
    rTLoadValue
                                        RTLoadValue,
   nRTLoadInformationValue
                                        NRTLoadInformationValue
-- For measurements on the Iur-g interface, only load, RT Load and NRT Load values are reported.
CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                                CommonMeasurementAvailable,
    measurementnotAvailable
                                NULL
CommonMeasurementAvailable::= SEQUENCE {
    commonMeasurementValue
                                CommonMeasurementValue,
   iE-Extensions
                                    ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }
                                                                                                                  OPTIONAL,
```

```
CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CongestionCause ::= ENUMERATED {
   uTRAN-dynamic-resources,
   uTRAN-semistatic-resources,
CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED {
   not-Required
CoverageIndicator ::= ENUMERATED {
    overlap,
   covers,
    containedIn,
CRC-Size
                        ::= ENUMERATED {
   v0,
   v8,
   v12,
   v16,
   v24,
CriticalityDiagnostics ::= SEQUENCE {
   procedureID
                                ProcedureID
                                                    OPTIONAL,
    triggeringMessage
                                TriggeringMessage
                                                        OPTIONAL,
    procedureCriticality
                                Criticality
                                                        OPTIONAL,
                                                        OPTIONAL,
    transactionID
                                TransactionID
    iEsCriticalityDiagnostics
                                    CriticalityDiagnostics-IE-List OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
       iECriticality
                                Criticality,
       iE-ID
                                ProtocolIE-ID,
       repetitionNumber
                                RepetitionNumber0
                                                        OPTIONAL,
                                ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
       iE-Extensions
```

```
CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   ID id-MessageStructure
                               CRITICALITY ignore
                                                       EXTENSION MessageStructure
                                                                                        PRESENCE optional }
   ID id-TypeOfError
                               CRITICALITY ignore
                                                       EXTENSION TypeOfError
                                                                                        PRESENCE mandatory },
    . . .
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
       iE-ID
                                ProtocolIE-ID,
       repetitionNumber
                                RepetitionNumber1
                                                        OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-CS-DomainIdentifier ::= SEQUENCE {
                       PLMN-Identity,
    pLMN-Identity
   lAC
                       LAC,
    iE-Extensions
                        ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                       PLMN-Identity,
   lAC
                        LAC,
   rAC
                       ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
    iE-Extensions
CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNDomainType
                ::= ENUMERATED {
   cs-domain,
   ps-domain,
   dont-care,
-- See in [16]
```

```
COI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,...}
COI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
C-RNTI
                       ::= INTEGER (0..65535)
-- D
DATA-ID ::= INTEGER (0..3)
DCH-FDD-Information
                        ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem
DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
   ul-FP-Mode
                                        UL-FP-Mode,
    toAWS
                                        ToAWS,
    t.oAWE
                                        ToAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-FDD-InformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item
DCH-Specific-FDD-Item ::=
                           SEOUENCE {
    dCH-ID
                                        DCH-ID,
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
   ul-transportFormatSet
                                        TransportFormatSet,
    dl-transportFormatSet
                                        TransportFormatSet,
   ul-BLER
                                        BLER,
    dl-BLER
                                        BLER,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    frameHandlingPriority
                                        FrameHandlingPriority,
    qE-Selector
                                        OE-Selector,
    dRACControl
                                        DRACControl,
                                        ProtocolExtensionContainer { {DCH-FDD-SpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-FDD-SpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                           PRESENCE optional }
      ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory |
    ID id-Unidirectional-DCH-Indicator
                                                CRITICALITY ignore EXTENSION Unidirectional-DCH-Indicator
                                                                                                              PRESENCE optional },
```

```
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```

```
DCH-ID
                        ::= INTEGER (0..255)
DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem
DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID
                                DCH-ID,
   bindingID
                                BindingID
                                                        OPTIONAL,
    transportLayerAddress
                                TransportLayerAddress
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
    . . .
DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Allowed-Rate-Information
                                            CRITICALITY ignore EXTENSION Allowed-Rate-Information
                                                                                                         PRESENCE optional },
    . . .
                       ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem
DCH-TDD-Information
DCH-TDD-InformationItem ::= SEQUENCE {
   payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
   ul-FP-Mode
                                        UL-FP-Mode,
                                        ToAWS,
    t.oAWS
    toAWE
                                        TOAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-TDD-InformationList,
                                        ProtocolExtensionContainer { {DCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item
DCH-Specific-TDD-Item ::= SEQUENCE {
    dCH-ID
                                        DCH-ID,
   ul-cCTrCH-ID
                                        CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
                                        CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
   dl-cCTrCH-ID
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
    ul-transportFormatSet
                                        TransportFormatSet,
    dl-transportFormatSet
                                        TransportFormatSet,
   ul-BLER
                                        BLER,
    dl-BLER
                                        BLER,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    frameHandlingPriority
                                        FrameHandlingPriority,
    gE-Selector
                                        OE-Selector
                                                            OPTIONAL,
    -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
    iE-Extensions
                                        ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
```

```
DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                         CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                    PRESENCE optional } |
                             CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory |
     ID id-TrafficClass
    { ID id-Unidirectional-DCH-Indicator
                                            CRITICALITY ignore EXTENSION Unidirectional-DCH-Indicator
                                                                                                      PRESENCE optional },
DedicatedMeasurementType ::= ENUMERATED {
   sir,
   sir-error,
   transmitted-code-power,
   rSCP.
   rx-timing-deviation,
   round-trip-time,
   rx-timing-deviation-LCR,
   angle-Of-Arrival-LCR,
   hs-sich-quality
DedicatedMeasurementValue ::= CHOICE {
   sIR-Value
                     SIR-Value,
   sIR-ErrorValue
                         SIR-Error-Value,
   transmittedCodePowerValue Transmitted-Code-Power-Value,
                      RSCP-Value, -- TDD only
   rxTimingDeviationValue Rx-Timing-Deviation-Value, -- 3.84Mcps TDD only
   roundTripTime
                      Round-Trip-Time-Value, -- FDD only
   extension-DedicatedMeasurementValue
                                         Extension-DedicatedMeasurementValue
Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}
Extension-DedicatedMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
     CRITICALITY reject TYPE Angle-Of-Arrival-Value-LCR PRESENCE mandatory } |
     ID id-Angle-Of-Arrival-Value-LCR
    { ID id-HS-SICH-Reception-Quality
                                         CRITICALITY reject TYPE HS-SICH-Reception-Quality-Value PRESENCE mandatory },
    . . .
DedicatedMeasurementValueInformation ::= CHOICE {
                              DedicatedMeasurementAvailable,
   measurementAvailable
                              DedicatedMeasurementnotAvailable
   measurementnotAvailable
DedicatedMeasurementAvailable::= SEOUENCE {
   dedicatedmeasurementValue
                                 DedicatedMeasurementValue,
   cFN
                                                        OPTIONAL,
```

OPTIONAL,

```
ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }
   ie-Extensions
DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementnotAvailable ::= NULL
DelayedActivation ::= CHOICE {
                            CFN,
                            NULL
    separate-indication
DelayedActivationUpdate ::= CHOICE {
   activate
                   Activate-Info,
    deactivate
                    Deactivate-Info
Activate-Info ::= SEOUENCE {
    activation-type
                            Execution-Type,
    initial-dl-tx-power
                            DL-Power,
                                                                                         OPTIONAL, --FDD Only
    firstRLS-Indicator
                            FirstRLS-Indicator
                            PropagationDelay
                                                                                         OPTIONAL, --FDD Only
    propagation-delay
    iE-Extensions
                            ProtocolExtensionContainer { { Activate-Info-ExtIEs} }
                                                                                         OPTIONAL,
Activate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Deactivate-Info ::= SEQUENCE {
    deactivation-type
                            Execution-Type,
                            ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }
    iE-Extensions
                                                                                             OPTIONAL,
    . . .
Deactivate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Execution-Type ::= CHOICE {
    synchronised
                    CFN,
    unsynchronised NULL
DeltaSIR
                        ::= INTEGER (0..30)
```

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```
-- Step 0.1 dB, Range 0..3 dB.
DGPSCorrections ::= SEOUENCE {
    qPSTOW
                                           GPSTOW,
    qPS-Status-Health
                                           GPS-Status-Health,
   satellite-DGPSCorrections-Information
                                           SEQUENCE (SIZE (1..maxNoSat)) OF
       SEOUENCE {
           sAT-ID
                                               SAT-ID,
           iode-dgps
                                               BIT STRING (SIZE (8)),
           uDRE
                                               UDRE.
           pRC
                                               PRC,
           range-Correction-Rate
                                               Range-Correction-Rate,
           iE-Extensions
                                               ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }
                                                                                                                                OPTIONAL,
           . . .
       },
                                   iE-Extensions
                                                                                                OPTIONAL,
    . . .
Satellite-DGPSCorrections-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
}
DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DGPSThreshold ::= SEQUENCE {
    pRCDeviation
                       PRCDeviation,
                       ProtocolExtensionContainer { { DGPSThreshold-ExtIEs} }
   iE-Extensions
                                                                                  OPTIONAL,
DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiscardTimer ::= ENUMERATED
\{v20, v40, v60, v80, v100, v120, v140, v160, v180, v200, v250, v300, v400, v500, v750, v1000, v1250, v1500, v1750, v2000, v2500, v3000, v3500, v4000, v4500, v5000, v7500.
. . .
DiversityControlField
                               ::= ENUMERATED {
    may,
    must,
    must-not
```

```
DiversityMode
                            ::= ENUMERATED {
   none,
   sTTD,
   closedLoopModel,
    closedLoopMode2,
DL-DPCH-SlotFormat
                           ::= INTEGER (0..16,...)
DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
DI-Power
                        ::=INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step 0.1dB
DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType
                                        PowerAdjustmentType,
                                        DL-Power
    dLReferencePower
                                                        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rgst
                                        DL-ReferencePowerInformationList
                                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep
                                        MaxAdjustmentStep
                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod
                                        AdjustmentPeriod
                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio
                                        ScaledAdjustmentRatio OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                                        ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    iE-Extensions
    . . .
DL-PowerBalancing-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-ReferencePowerInformationList
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem
DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID
                                RL-ID,
    dl-Reference-Power
                                DL-Power,
    iE-Extensions
                                ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-PowerBalancing-ActivationIndicator ::= ENUMERATED {
    dL-PowerBalancing-Activated
DL-PowerBalancing-UpdatedIndicator ::= ENUMERATED {
    dL-PowerBalancing-Updated
DL-ReferencePowerInformation
                              ::= SEOUENCE {
    common-DL-ReferencePowerInformation
                                                                OPTIONAL,
                                                DL-Power
    individual-DL-ReferencePowerInformation
                                                DL-ReferencePowerInformationList
                                                                                        OPTIONAL,
                                                ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
   iE-Extensions
    . . .
DL-ReferencePowerInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
D-RNTI
                        ::= INTEGER (0..1048575)
D-RNTI-ReleaseIndication ::= ENUMERATED {
    release-D-RNTI,
   not-release-D-RNTI
DL-ScramblingCode
                            ::= INTEGER (0..15)
DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    . . .
DL-Timeslot-Information ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem
DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
   tFCI-Presence
                                    TFCI-Presence,
    dL-Code-Information
                                    TDD-DL-Code-Information,
                                    ProtocolExtensionContainer { {DL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF DL-TimeslotLCR-InformationItem
```

```
DL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
   midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
    dL-Code-LCR-Information
                                        TDD-DL-Code-LCR-Information,
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }
                                                                                                                      OPTIONAL,
DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem
                                                          CRITICALITY ignore EXTENSION DL-Power
                                                                                                                       PRESENCE optional } |
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem
                                                         CRITICALITY ignore
                                                                                 EXTENSION DL-Power
                                                                                                                       PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
DL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem
DL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot
                                TimeSlot,
    dL-TimeslotISCP
                                DL-TimeslotISCP,
                                ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem
DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
   timeSlotLCR
                                    TimeSlotLCR,
   dL-TimeslotISCP
                                    DL-TimeslotISCP,
   iE-Extensions
                                    ProtocolExtensionContainer { { DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} } 
                                                                                                             OPTIONAL,
DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotISCP
                       ::= INTEGER (0..91)
-- According to mapping in [24]
Downlink-Compressed-Mode-Method
                                   ::= ENUMERATED {
   puncturing,
    sFdiv2,
   higher-layer-scheduling,
```

```
DPC-Mode ::= ENUMERATED {
   mode0,
   mode1,
   . . .
DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
   dPC-ModeChangeSupported
DPCH-ID
                        ::= INTEGER (0..239)
DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
DRACControl
                ::= ENUMERATED {
    requested,
    not-requested
DRXCycleLengthCoefficient
                                        ::= INTEGER (3..9)
-- See in [16]
DSCH-FDD-Information::= SEQUENCE {
    dSCH-Specific-Information
                                         DSCH-Specific-FDD-Item,
-- This DSCH-Specific-FDD-Item is the first DSCH-Specific-FDD-Item in DSCH-FDD-Information. If more than one DSCH-Specific-FDD-Item; s should be defined
in a DSCH-FDD-Information, from 2<sup>nd</sup> DSCH-Specific-FDD Item, they will be included in the DSCH-Specific-FDD-Additional-List in the DSCH-FDD-Information-
ExtIEs.
    pdSCH-RL-ID
                                         RL-ID,
    tFCS
                                         TFCS,
                                         ProtocolExtensionContainer { {DSCH-FDD-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-Specific-FDD-Additional-List
                                                     CRITICALITY reject EXTENSION DSCH-Specific-FDD-Additional-List
                                                                                                                            PRESENCE optional } |
    { ID id-EnhancedDSCHPC
                                        CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                                       PRESENCE optional },
    . . .
DSCH-RNTI ::= INTEGER (0..65535)
DSCH-Specific-FDD-Item ::= SEQUENCE {
    dSCH-ID
                                         DSCH-ID,
    trChSourceStatisticsDescriptor
                                         TrCH-SrcStatisticsDescr,
    transportFormatSet
                                         TransportFormatSet,
    allocationRetentionPriority
                                         AllocationRetentionPriority,
    schedulingPriorityIndicator
                                         SchedulingPriorityIndicator,
```

```
bler
                                      BLER.
   iE-Extensions
                                      ProtocolExtensionContainer { {DSCH-Specific-FDD-Item-ExtIEs} } OPTIONAL,
    . . .
DSCH-Specific-FDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                              CRITICALITY ignore EXTENSION TrafficClass
                                                                             PRESENCE mandatory }
   { ID id-BindingID
                                                                             BindingID
                                                                                                                optional }|
                                          CRITICALITY ignore
                                                                 EXTENSION
                                                                                            PRESENCE
   -- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                          CRITICALITY ignore
                                                                 EXTENSION
                                                                             TransportLayerAddress
                                                                                                       PRESENCE
                                                                                                                  optional },
   -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-Specific-FDD-Additional-List ::= SEQUENCE (SIZE(1..maxNoOfDSCHs-1)) OF DSCH-Specific-FDD-Item
DSCH-FDD-InformationResponse ::= SEQUENCE {
   dsch-Specific-InformationResponse
                                      DSCH-Specific-FDD-InformationResponse,
   pdSCHCodeMapping
                                      PDSCHCodeMapping,
                                      iE-Extensions
    . . .
DSCH-FDD-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Specific-FDD-InformationResponse ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-Specific-FDD-Response-Item
DSCH-Specific-FDD-Response-Item ::= SEQUENCE {
   dsch-ID
                                  DSCH-ID,
   dSCH-FlowControlInformation
                                  DSCH-FlowControlInformation,
   bindingID
                                  BindingID
                                                         OPTIONAL,
                                                         OPTIONAL,
   transportLayerAddress
                                  TransportLayerAddress
                                  ProtocolExtensionContainer { {DSCH-Specific-FDD-Response-Item-ExtIEs} } OPTIONAL,
   iE-Extensions
DSCH-Specific-FDD-Response-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-FlowControlInformation ::= SEQUENCE (SIZE(1..16)) OF DSCH-FlowControlItem
DSCH-FlowControlItem ::= SEQUENCE {
                                      SchedulingPriorityIndicator,
   dSCH-SchedulingPriority
   mAC-c-sh-SDU-Lengths
                                      MAC-c-sh-SDU-LengthList,
   iE-Extensions
                                      ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
```

```
DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-InitialWindowSize CRITICALITY ignore EXTENSION DSCH-InitialWindowSize PRESENCE optional },
    . . .
DSCH-ID
                        ::= INTEGER (0..255)
DSCH-InitialWindowSize
                                ::= INTEGER (1..255)
-- Number of MAC-c/sh SDUs.
-- 255 = Unlimited number of MAC-c/sh SDUs
DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem
DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID
                                        DSCH-ID,
    dl-ccTrCHID
                                        CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
   bler
                                        BLER.
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
DSCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory |
    { ID id-BindingID
                                                                                                                     optional }|
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID
                                                                                                PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
EnhancedDSCHPC ::= SEQUENCE {
    enhancedDSCHPCWnd EnhancedDSCHPCWnd,
    enhancedDSCHPCCounter EnhancedDSCHPCCounter,
    enhancedDSCHPowerOffset EnhancedDSCHPowerOffset,
EnhancedDSCHPCCounter ::= INTEGER (1..50)
EnhancedDSCHPCIndicator ::= ENUMERATED {
    enhancedDSCHPCActiveInTheUE,
    enhancedDSCHPCNotActiveInTheUE
EnhancedDSCHPCWnd ::= INTEGER (1..10)
```

```
EnhancedDSCHPowerOffset ::= INTEGER (-15..0)
Enhanced-PrimaryCPICH-EcNo
                                  ::= INTEGER (0..49)
EventA ::= SEQUENCE {
   measurementTreshold
                           MeasurementThreshold,
   measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
   iE-Extensions
                           ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventB ::= SEQUENCE {
   measurementTreshold
                           MeasurementThreshold,
   measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
                            ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventC ::= SEQUENCE {
   {\tt measurementIncreaseDecreaseThreshold} {\tt MeasurementIncreaseDecreaseThreshold},
   measurementChangeTime
                                MeasurementChangeTime,
                            ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventD ::= SEOUENCE {
   {\tt measurementIncreaseDecreaseThreshold} {\tt MeasurementIncreaseDecreaseThreshold},
   measurementChangeTime
                                MeasurementChangeTime,
                           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
   iE-Extensions
EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventE ::= SEQUENCE {
```

```
measurement.Threshold1
                                MeasurementThreshold,
    measurementThreshold2
                                MeasurementThreshold
                                                                OPTIONAL,
    measurementHysteresisTime
                                MeasurementHysteresisTime
                                                                OPTIONAL,
    reportPeriodicity
                            ReportPeriodicity
                                                        OPTIONAL,
    iE-Extensions
                            ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventF ::= SEOUENCE {
   measurementThreshold1
                                MeasurementThreshold,
    measurementThreshold2
                                MeasurementThreshold
                                                                OPTIONAL,
    measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
                            ReportPeriodicity
                                                        OPTIONAL,
    reportPeriodicity
                            ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExtendedGSMCellIndividualOffset ::= INTEGER (-50..-11|11..50)
-- F
FACH-FlowControlInformation ::= SEQUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem
FACH-FlowControlInformationItem ::= SEQUENCE {
    fACH-SchedulingPriority
                                    SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths
                                    MAC-c-sh-SDU-LengthList,
    fACH-InitialWindowSize
                                    FACH-InitialWindowSize,
                                    ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-InitialWindowSize
                                ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames
FACH-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfFACHs)) OF FACH-InformationItem
FACH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
```

```
iE-Extensions
                                    ProtocolExtensionContainer { { FACH-InformationItem-ExtIEs} } OPTIONAL,
FACH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-PCH-InformationList ::= SEOUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem
FACH-PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                    ProtocolExtensionContainer { { FACH-PCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FACH-PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-DCHs-to-Modify
                                ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem
FDD-DCHs-to-ModifyItem ::= SEOUENCE {
   ul-FP-Mode
                                        UL-FP-Mode
                                                         OPTIONAL,
    toAWS
                                        ToAWS
                                                    OPTIONAL,
    toAWE
                                        ToAWE
                                                     OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        FDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifySpecificItem
FDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
    ul-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL.
    allocationRetentionPriority
                                    AllocationRetentionPriority
                                                                     OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority
                                                                 OPTIONAL,
                                                     OPTIONAL,
    dRACControl
                                    DRACControl
                                    ProtocolExtensionContainer { {FDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional }
```

```
{ ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE optional },
FDD-DL-ChannelisationCodeNumber
                                    ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--
FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF FDD-DL-CodeInformationItem
FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode
                                                                DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                                                FDD-DL-ChannelisationCodeNumber,
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information
                                                                        Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
    iE-Extensions
                                            ProtocolExtensionContainer { {FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
FDD-DL-CodeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-S-CCPCH-Offset
                           ::= INTEGER (0..149)
FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-sizel,
    step-size1-5,
    step-size2,
SchedulingPriorityIndicator
                                        ::= INTEGER { lowest(0), highest(15) } (0..15)
FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
   not-first-RLS
FNReportingIndicator ::= ENUMERATED {
    fN-reporting-required,
    fN-reporting-not-required
FPACH-Information ::= SEQUENCE {
    timeSlotLCR
                                TimeSlotLCR,
    tDD-ChannelisationCodeLCR
                                TDD-ChannelisationCodeLCR,
    midambleShiftLCR
                                MidambleShiftLCR,
    wT
                                INTEGER (1..4),
```

```
FrameHandlingPriority
                                ::= INTEGER { lowest(0), highest(15) } (0..15)
FrameOffset
                        ::= INTEGER (0..255)
-- Frames
-- G
                        ::= INTEGER (1..14)
GapLength
-- Unit Slot
GapDuration
                        ::= INTEGER (1..144,...)
-- Unit Frame
GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEQUENCE {
        cell-GAIgeographicalCoordinate
                                            GeographicalCoordinate,
                                ProtocolExtensionContainer { GA-Cell-ExtIEs} } OPTIONAL,
       iE-Extensions
GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-CellAdditionalShapes ::= CHOICE {
    pointWithUncertainty
                                                    GA-PointWithUnCertainty,
   pointWithUncertaintyEllipse
                                                    GA-PointWithUnCertaintyEllipse,
   pointWithAltitude
                                                    GA-PointWithAltitude,
    pointWithAltitudeAndUncertaintyEllipsoid
                                                    GA-PointWithAltitudeAndUncertaintyEllipsoid,
                                                    GA-EllipsoidArc,
    ellipsoidArc
GA-AltitudeAndDirection ::= SEQUENCE {
                            ENUMERATED {height, depth},
   directionOfAltitude
    altitude
                            INTEGER (0..32767),
    . . .
GA-EllipsoidArc ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    innerRadius
                                INTEGER (0..65535),
    uncertaintyRadius
                                INTEGER (0..127),
    offsetAngle
                                INTEGER (0..179),
    includedAngle
                                INTEGER (0..179),
    confidence
                                INTEGER (0..127),
                                ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
GA-PointWithAltitude ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
   altitudeAndDirection
                                GA-AltitudeAndDirection,
   iE-Extensions
                                ProtocolExtensionContainer { { GA-PointWithAltitude-ExtIEs} } OPTIONAL,
GA-PointWithAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
   altitudeAndDirection
                                GA-AltitudeAndDirection,
   uncertaintyEllipse
                                GA-UncertaintyEllipse,
    uncertaintyAltitude
                                INTEGER (0..127),
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs} } OPTIONAL,
GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithUnCertaintyEllipse ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
   uncertaintyEllipse
                                GA-UncertaintyEllipse,
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
GA-UncertaintyEllipse ::= SEQUENCE {
   uncertaintySemi-major
                                INTEGER (0..127),
    uncertaintySemi-minor
                                INTEGER (0..127),
    orientationOfMajorAxis
                                INTEGER (0..179), -- The values 90..179 shall not be used.
    . . .
GA-PointWithUnCertainty ::=SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
                            INTEGER (0..127),
    uncertaintyCode
    iE-Extensions
                            ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
```

```
GA-PointWithUnCertainty-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-AccessPointPosition ::= SEQUENCE {
    geographicalCoordinate
                                GeographicalCoordinate,
                           ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
   iE-Extensions
GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GeographicalCoordinate ::= SEQUENCE {
                           ENUMERATED { north, south },
   latitudeSign
   latitude
                        INTEGER (0..8388607),
   longitude
                       INTEGER (-8388608..8388607),
   iE-Extensions
                           ProtocolExtensionContainer { {GeographicalCoordinate-ExtIEs} } OPTIONAL,
GeographicalCoordinate-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GERAN-Cell-Capability ::= BIT STRING (SIZE (16))
-- First bit: A/Gb mode --
-- Second bit: Iu mode --
-- Note: undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. --
                            OCTET STRING
GERAN-Classmark ::=
    -- GERAN Classmark as defined in (38) --
GPS-Almanac ::= SEQUENCE {
    wn<sub>a</sub>-alm
                           BIT STRING (SIZE (8)),
    satellite-Almanac-Information
                                        SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
           data-id
                               DATA-ID,
           sAT-ID
                               SAT-ID,
                               BIT STRING (SIZE (16)),
           gps-e-alm
                               BIT STRING (SIZE (8)),
           qps-toa-alm
           gps-delta-I-alm
                               BIT STRING (SIZE (16)),
           omegadot-alm
                                BIT STRING (SIZE (16)),
           svhealth-alm
                                BIT STRING (SIZE (8)),
           gps-a-sgrt-alm
                               BIT STRING (SIZE (24)),
           omegazero-alm
                               BIT STRING (SIZE (24)),
           m-zero-alm
                               BIT STRING (SIZE (24)),
```

```
gps-omega-alm
                               BIT STRING (SIZE (24)),
           gps-af-zero-alm
                               BIT STRING (SIZE (11)),
           gps-af-one-alm
                                BIT STRING (SIZE (11)),
           iE-Extensions
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} } 
                                                                                                           OPTIONAL,
    sVGlobalHealth-alm
                           BIT STRING (SIZE (364))
                                                        OPTIONAL,
                           ProtocolExtensionContainer { GPS-Almanac-ExtIEs} }
    iE-Extensions
                                                                                        OPTIONAL,
Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
GPSInformation ::= SEQUENCE (SIZE (1..maxNoGPSTypes)) OF
   SEQUENCE {
        gPSInformationItem
                                ENUMERATED {
           gPS-NavigationModel-and-TimeRecovery,
           qPS-Ionospheric-Model,
           gPS-UTC-Model,
           gPS-Almanac,
           gPS-RealTime-Integrity,
                                ProtocolExtensionContainer { GPSInformation-ExtIEs} }
       iE-Extensions
                                                                                            OPTIONAL,
        . . .
-- This IE shall be present if the Information Type IE indicates 'GPS Information'
GPSInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos
                           BIT STRING (SIZE (8)),
    alpha-one-ionos
                           BIT STRING (SIZE (8)),
    alpha-two-ionos
                           BIT STRING (SIZE (8)),
    alpha-three-ionos
                           BIT STRING (SIZE (8)),
    beta-zero-ionos
                           BIT STRING (SIZE (8)),
    beta-one-ionos
                           BIT STRING (SIZE (8)),
    beta-two-ionos
                           BIT STRING (SIZE (8)),
   beta-three-ionos
                           BIT STRING (SIZE (8)),
    iE-Extensions
                           ProtocolExtensionContainer { GPS-Ionospheric-Model-ExtIEs} }
                                                                                                OPTIONAL,
```

```
GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF
    SEQUENCE {
       tx-tow-nav
                                      INTEGER (0..1048575),
       sAT-ID
                                      SAT-ID,
       tlm-message-nav
                                      BIT STRING (SIZE (14)),
       tlm-revd-c-nav
                                      BIT STRING (SIZE (2)),
       ho-word-nav
                                      BIT STRING (SIZE (22)),
       w-n-nav
                                      BIT STRING (SIZE (10)),
       ca-or-p-on-12-nav
                                      BIT STRING (SIZE (2)),
       user-range-accuracy-index-nav
                                     BIT STRING (SIZE (4)),
       sv-health-nav
                                      BIT STRING (SIZE (6)),
       iodc-nav
                                      BIT STRING (SIZE (10)),
       12-p-dataflag-nav
                                      BIT STRING (SIZE (1)),
       sfl-reserved-nav
                                      BIT STRING (SIZE (87)),
       t-gd-nav
                                      BIT STRING (SIZE (8)),
       t-oc-nav
                                      BIT STRING (SIZE (16)),
       a-f-2-nav
                                      BIT STRING (SIZE (8)),
       a-f-1-nav
                                      BIT STRING (SIZE (16)),
       a-f-zero-nav
                                      BIT STRING (SIZE (22)),
       c-rs-nav
                                      BIT STRING (SIZE (16)),
       delta-n-nav
                                      BIT STRING (SIZE (16)),
       m-zero-nav
                                      BIT STRING (SIZE (32)),
       c-uc-nav
                                      BIT STRING (SIZE (16)),
                                      BIT STRING (SIZE (32)),
       qps-e-nav
       c-us-nav
                                      BIT STRING (SIZE (16)),
       a-sqrt-nav
                                      BIT STRING (SIZE (32)),
       t-oe-nav
                                      BIT STRING (SIZE (16)),
       fit-interval-flag-nav
                                      BIT STRING (SIZE (1)),
       aodo-nav
                                      BIT STRING (SIZE (5)),
       c-ic-nav
                                      BIT STRING (SIZE (16)),
       omega-zero-nav
                                      BIT STRING (SIZE (32)),
       c-is-nav
                                      BIT STRING (SIZE (16)),
       i-zero-nav
                                      BIT STRING (SIZE (32)),
       c-rc-nav
                                      BIT STRING (SIZE (16)),
       qps-omega-nav
                                      BIT STRING (SIZE (32)),
       omegadot-nav
                                      BIT STRING (SIZE (24)),
       idot-nav
                                      BIT STRING (SIZE (14)),
       spare-zero-fill
                                      BIT STRING (SIZE (20)),
                                      iE-Extensions
                                                                                                                      OPTIONAL,
GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-RealTime-Integrity ::= CHOICE {
```

```
badSatellites
                                BadSatellites,
   noBadSatellite
                                NULL
GPS-RX-POS ::= SEOUENCE {
    geographicalCoordinate
                                GeographicalCoordinate,
   altitudeAndDirection
                                GA-AltitudeAndDirection,
    iE-Extensions
                                ProtocolExtensionContainer { GPS-RX-POS-ExtIEs} } OPTIONAL,
GPS-RX-POS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Status-Health ::= ENUMERATED {
  udre-1-0,
  udre-0-75,
  udre-0-5,
  udre-0-3,
  udre-0-1,
  no-data,
   invalid-data
GPSTOW ::= INTEGER (0..604799)
GPS-UTC-Model ::= SEQUENCE {
    a-one-utc
                            BIT STRING (SIZE (24)),
                            BIT STRING (SIZE (32)),
   a-zero-utc
    t-ot-utc
                            BIT STRING (SIZE (8)),
   delta-t-ls-utc
                           BIT STRING (SIZE (8)),
   w-n-t-utc
                            BIT STRING (SIZE (8)),
   w-n-lsf-utc
                           BIT STRING (SIZE (8)),
   dn-utc
                           BIT STRING (SIZE (8)),
   delta-t-lsf-utc
                           BIT STRING (SIZE (8)),
                            ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }
    iE-Extensions
                                                                                         OPTIONAL,
GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate-Information ::= SEQUENCE {
    guaranteed-UL-Rate
                                Guaranteed-Rate OPTIONAL,
    quaranteed-DL-Rate
                                Guaranteed-Rate OPTIONAL,
                                ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
Guaranteed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate
                       ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
-- H
HARQ-MemoryPartitioning ::= CHOICE {
    implicit
                    HARQ-MemoryPartitioning-Implicit,
    explicit
                    HARQ-MemoryPartitioning-Explicit,
    . . .
HARQ-MemoryPartitioning-Implicit
                                  ::= SEOUENCE {
   number-of-Processes
                                INTEGER (1..8,...),
                                ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }
    iE-Extensions
                                                                                                                 OPTIONAL,
    . . .
HARQ-MemoryPartitioning-Implicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARO-MemoryPartitioning-Explicit
                                    ::= SEOUENCE {
   hARO-MemoryPartitioningList
                                        HARO-MemoryPartitioningList,
                                        ProtocolExtensionContainer { { HARO-MemoryPartitioning-Explicit-ExtIEs } }
   iE-Extensions
                                                                                                                           OPTIONAL,
HARQ-MemoryPartitioning-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARO-MemoryPartitioningList ::= SEOUENCE (SIZE (1..maxNrOfHAROProc)) OF HARO-MemoryPartitioningItem
HARQ-MemoryPartitioningItem ::= SEQUENCE {
    process-Memory-Size
                                        ENUMERATED {
                                        hms800, hms1600, hms2400, hms3200, hms4000,
                                        hms4800, hms5600, hms6400, hms7200, hms8000,
                                        hms8800, hms9600, hms10400, hms11200, hms12000,
                                        hms12800, hms13600, hms14400, hms15200, hms16000,
                                        hms17600, hms19200, hms20800, hms22400, hms24000,
                                        hms25600, hms27200, hms28800, hms30400, hms32000,
                                        hms36000, hms40000, hms44000, hms48000, hms52000,
                                        hms56000, hms60000, hms64000, hms68000, hms72000,
                                        hms76000, hms80000, hms88000, hms96000, hms104000,
                                        hms112000, hms120000, hms128000, hms136000, hms144000,
                                        hms152000, hms160000, hms176000, hms192000, hms208000,
                                        hms224000, hms240000, hms256000, hms272000, hms288000,
```

```
hms304000,...},
    iE-Extensions
                                        ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }
                                                                                                                     OPTIONAL,
    . . .
HARQ-MemoryPartitioningItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HCS-Prio
           ::= INTEGER (0..7)
-- 0 = lowest priority, ...7 = highest priority
HSDSCH-FDD-Information ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                            HSDSCH-MACdFlow-Specific-InfoList,
   priorityOueue-Info
                                            PriorityOueue-InfoList,
   uE-Capabilities-Info
                                            UE-Capabilities-Info,
    cgiFeedback-CycleK
                                            CQI-Feedback-Cycle,
                                            CQI-RepetitionFactor
                                                                             OPTIONAL,
    cgiRepetitionFactor
    -- This IE shall be present if the CQI Feedback Cycle k is greater than 0
                                            CQI-Power-Offset,
    cqiPowerOffset
    ackNackRepetitionFactor
                                            AckNack-RepetitionFactor,
    ackPowerOffset
                                            Ack-Power-Offset.
    nackPowerOffset
                                            Nack-Power-Offset,
   hsscch-PowerOffset
                                            HSSCCH-PowerOffset
                                                                             OPTIONAL.
                                            ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } }
    iE-Extensions
                                                                                                                     OPTIONAL,
HSDSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-FDD-Information-Response ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-InfoList-Response
                                                     HSDSCH-MACdFlow-Specific-InfoList-Response,
   hSSCCH-Specific-InfoList-Response
                                                     HSSCCH-FDD-Specific-InfoList-Response,
    measurement-Power-Offset
                                                     Measurement-Power-Offset
                                                                                     OPTIONAL,
   hARO-MemoryPartitioning
                                                     HARO-MemoryPartitioning,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }
                                                                                                                                       OPTIONAL,
HSDSCH-FDD-Information-Response-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Information-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                     HSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                                                                            OPTIONAL,
    mAChs-Reordering-Buffer-Size
                                                     MAChsReorderingBufferSize
                                                                                             OPTIONAL,
    priorityQueue-Info-to-Modify
                                                     PriorityQueue-InfoList-to-Modify
                                                                                             OPTIONAL,
    cgiFeedback-CycleK
                                                     CQI-Feedback-Cycle
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    cqiRepetitionFactor
                                                     CQI-RepetitionFactor
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
```

```
cgiPowerOffset
                                                   COI-Power-Offset
                                                                                  OPTIONAL,
                                                                                             -- For FDD only
   ackPowerOffset
                                                   Ack-Power-Offset
                                                                                  OPTIONAL,
                                                                                             -- For FDD only
   nackPowerOffset
                                                   Nack-Power-Offset
                                                                                  OPTIONAL,
                                                                                             -- For FDD only
   hsscch-PowerOffset
                                                   HSSCCH-PowerOffset
                                                                                  OPTIONAL,
                                                                                             -- Only for FDD
   hSSCCH-CodeChangeGrant
                                                   HSSCCH-Code-Change-Grant
                                                                                  OPTIONAL,
   tDDAckNackPowerOffset
                                                   TDD-AckNack-Power-Offset
                                                                                  OPTIONAL,
                                                                                             -- For TDD only
   iE-Extensions
                                                   ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs } }
                                                                                                                               OPTIONAL.
HSDSCH-Information-to-Modify-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)
HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem
HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                       HSDSCH-MACdFlow-ID,
   allocationRetentionPriority
                                       AllocationRetentionPriority,
   trafficClass
                                       TrafficClass,
   bindingID
                                       BindingID
                                                                              OPTIONAL.
    transportLayerAddress
                                       TransportLayerAddress
                                                                              OPTIONAL,
                                       iE-Extensions
                                                                                                                      OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response
HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEQUENCE
   hSDSCH-MACdFlow-ID
                                       HSDSCH-MACdFlow-ID,
   bindingID
                                       BindingID
                                                                              OPTIONAL,
    transportLayerAddress
                                       TransportLayerAddress
                                                                              OPTIONAL,
   hSDSCH-Initial-Capacity-Allocation HSDSCH-Initial-Capacity-Allocation
                                                                              OPTIONAL,
   iE-Extensions
                                       ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                               OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                      HSDSCH-MACdFlow-ID,
```

```
allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                                 OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    trafficClass
                                        TrafficClass
                                                                                 OPTIONAL.
   bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }
                                                                                                                                       OPTIONAL,
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Initial-Capacity-Allocation::= SEQUENCE (SIZE (1..16)) OF HSDSCH-Initial-Capacity-AllocationItem
HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator
                                    SchedulingPriorityIndicator,
    maximum-MACdPDU-Size
                                    MACdPDU-Size,
   hSDSCH-InitialWindowSize
                                    HSDSCH-InitialWindowSize,
                                    ProtocolExtensionContainer { {HSDSCH-Initial-Capacity-AllocationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
HSDSCH-Initial-Capacity-AllocationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-InitialWindowSize
                                    ::= INTEGER (1..2047)
-- Number of MAC-d PDUs.
-- 2047 = Unlimited number of MAC-d PDUs
HSDSCH-RNTI ::= INTEGER (0..65535)
HSDSCH-TDD-Information ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                            HSDSCH-MACdFlow-Specific-InfoList,
   priorityOueue-Info
                                            PriorityOueue-InfoList,
   uE-Capabilities-Info
                                            UE-Capabilities-Info,
    tDD-AckNack-Power-Offset
                                            TDD-AckNack-Power-Offset,
    iE-Extensions
                                            ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } }
                                                                                                                     OPTIONAL,
    . . .
HSDSCH-TDD-Information-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Information-Response ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-InfoList-Response
                                                     HSDSCH-MACdFlow-Specific-InfoList-Response,
   hSSCCH-TDD-Specific-InfoList-Response
                                                     HSSCCH-TDD-Specific-InfoList-Response
                                                                                                      OPTIONAL,
-- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
   hSSCCH-TDD-Specific-InfoList-Response-LCR
                                                     HSSCCH-TDD-Specific-InfoList-Response-LCR
                                                                                                      OPTIONAL,
```

```
-- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   hSPDSCH-TDD-Specific-InfoList-Response
                                                    HSPDSCH-TDD-Specific-InfoList-Response
                                                                                                      OPTIONAL,
   hSPDSCH-TDD-Specific-InfoList-Response-LCR
                                                    HSPDSCH-TDD-Specific-InfoList-Response-LCR
                                                                                                      OPTIONAL,
   hARQ-MemoryPartitioning
                                                    HARQ-MemoryPartitioning,
    iE-Extensions
                                                    ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }
                                                                                                                                      OPTIONAL,
HSDSCH-TDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response
HSPDSCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot
                                                    TimeSlot,
   midambleShiftAndBurstType
                                                    MidambleShiftAndBurstType,
   iE-Extensions
                                                    ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                            OPTIONAL.
    . . .
HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-TDD-Specific-InfoList-Response-LCR ::= SEOUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF HSPDSCH-TDD-Specific-InfoItem-Response-LCR
HSPDSCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE
    timeslotLCR
                                                TimeSlotLCR,
    midambleShiftLCR
                                                MidambleShiftLCR,
    iE-Extensions
                                                ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
                                                                                                                                            OPTIONAL,
HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-FDD-Specific-InfoList-Response ::= SEOUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-FDD-Specific-InfoItem-Response
HSSCCH-FDD-Specific-InfoItem-Response ::= SEOUENCE {
    code-Number
                                                     INTEGER (0..127),
                                                    ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
    iE-Extensions
                                                                                                                                            OPTIONAL,
HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-PowerOffset ::= INTEGER (0..255)
```

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```
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response
HSSCCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot
                                                   TimeSlot,
   midambleShiftAndBurstType
                                                   MidambleShiftAndBurstType,
   tDD-ChannelisationCode
                                                   TDD-ChannelisationCode,
   hSSICH-Info
                                                   HSSICH-Info,
    iE-Extensions
                                                   ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                         OPTIONAL,
    . . .
HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response-LCR
HSSCCH-TDD-Specific-InfoItem-Response-LCR ::= SEOUENCE {
    timeslotLCR
                                               TimeSlotLCR,
    midambleShiftLCR
                                               MidambleShiftLCR,
    first-TDD-ChannelisationCode
                                               TDD-ChannelisationCode,
    second-TDD-ChannelisationCode
                                           TDD-ChannelisationCode,
   hSSICH-InfoLCR
                                               HSSICH-InfoLCR,
                                               ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    iE-Extensions
                                                                                                                                         OPTIONAL,
    . . .
HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
HSSICH-Info ::= SEQUENCE {
   hsSICH-ID
                                                   HS-SICH-ID,
   timeslot
                                                   TimeSlot,
   midambleShiftAndBurstType
                                                   MidambleShiftAndBurstType,
    tDD-ChannelisationCode
                                                   TDD-ChannelisationCode,
    iE-Extensions
                                                   OPTIONAL,
HSSICH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HSSICH-InfoLCR ::= SEQUENCE {
   hsSICH-ID
                                                   HS-SICH-ID.
   timeslotLCR
                                                   TimeSlotLCR,
    midambleShiftLCR
                                                   MidambleShiftLCR,
```

```
tDD-ChannelisationCode
                                                TDD-ChannelisationCode,
   iE-Extensions
                                                     ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }
                                                                                                                     OPTIONAL,
    . . .
HSSICH-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HS-SICH-Reception-Quality-Value ::= SEQUENCE {
    failed-HS-SICH
                                HS-SICH-failed,
    missed-HS-SICH
                                HS-SICH-missed,
    total-HS-SICH
                                HS-SICH-total,
   iE-Extensions
                                ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
HS-SICH-Reception-Quality-Value-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HS-SICH-failed ::= INTEGER (0..20)
HS-SICH-missed ::= INTEGER (0..20)
HS-SICH-total ::= INTEGER (0..20)
HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]
HS-SICH-ID ::= INTEGER (0..31)
HSSCCH-CodeChangeIndicator ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
HSSCCH-Code-Change-Grant
                            ::= ENUMERATED {
    changeGranted
HSDSCH-FDD-Update-Information ::= SEQUENCE {
   hsSCCHCodeChangeIndicator
                                                     HSSCCH-CodeChangeIndicator
                                                                                                 OPTIONAL,
    cqiFeedback-CycleK
                                                     CQI-Feedback-Cycle
                                                                                                 OPTIONAL,
                                                     CQI-RepetitionFactor
    cqiRepetitionFactor
                                                                                                 OPTIONAL,
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                                 OPTIONAL,
    cgiPowerOffset
                                                     COI-Power-Offset
                                                                                                 OPTIONAL,
                                                     Ack-Power-Offset
    ackPowerOffset
                                                                                                 OPTIONAL,
   nackPowerOffset
                                                     Nack-Power-Offset
                                                                                                 OPTIONAL,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }
                                                                                                                                 OPTIONAL,
```

```
HSDSCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Update-Information ::= SEQUENCE {
   hsSCCHCodeChangeIndicator
                                                 HSSCCH-CodeChangeIndicator
                                                                                           OPTIONAL,
   tDDAckNackPowerOffset
                                                 TDD-AckNack-Power-Offset
                                                                                           OPTIONAL,
   iE-Extensions
                                                 ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }
                                                                                                                        OPTIONAL,
HSDSCH-TDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- I
IB-SchedulingInformation::= SEQUENCE
    iB-SG-Rep
                                  IB-SG-REP,
   iB-segmentInformationList
                                  IB-SegmentInformationList,
   iE-Extensions
                                  ProtocolExtensionContainer { { IB-SchedulingInformation-ExtIEs } } OPTIONAL,
       . . .
IB-SchedulingInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SegmentInformationList ::= SEQUENCE (SIZE(1..maxIBSEG)) OF IB-SegmentInformationItem
IB-SegmentInformationItem ::= SEQUENCE {
   iB-SG-POS
                                  IB-SG-POS,
                                  iE-Extensions
IB-SegmentInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed
          ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
IMSI
           ::= OCTET STRING (SIZE(3..8))
InformationAvailable::= SEQUENCE {
   requestedDataValue
                          RequestedDataValue,
   iE-Extensions
                          ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }
                                                                                           OPTIONAL,
```

```
InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeID ::= INTEGER (0..1048575)
InformationNotAvailable ::= NULL
InformationReportCharacteristics ::= CHOICE {
   onDemand
                           NULL,
   periodic
                           PeriodicInformation,
                           OnModificationInformation,
   onModification
InformationReportPeriodicity ::= CHOICE {
                    INTEGER (1..60,...),
-- Unit min, Step 1min
   hour
                   INTEGER (1..24,...),
-- Unit hour, Step 1hour
    . . .
InformationThreshold ::= CHOICE {
    dGPSThreshold
                        DGPSThreshold,
InformationType ::= SEQUENCE {
    informationTypeItem
                            ENUMERATED {
        gA-AccessPointPositionwithAltitude,
        gA-AccessPointPosition,
       iPDLParameters,
       gPSInformation,
       dGPSCorrections,
       qPS-RX-POS,
       sFNSFN-GA-AccessPointPosition,
        cell-Capacity-Class
    qPSInformation
                                GPSInformation
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { InformationType-ExtIEs} }
                                                                                                 OPTIONAL,
-- The GPS Information IE shall be present if the Information Exchange Type IE indicates 'GPS Information'
-- For information exchange on the Iur-q interface, only the Cell Capacity Class is used.
```

```
InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InnerLoopDLPCStatus
                       ::= ENUMERATED {active, inactive}
IPDLParameters ::= CHOICE {
   iPDL-FDD-Parameters
                                IPDL-FDD-Parameters,
   iPDL-TDD-Parameters
                                IPDL-TDD-Parameters,
                                                        --3.84Mcps TDD only
    extension-IPDLParameters
                                Extension-IPDLParameters
                          ::= ProtocolIE-Single-Container {{ Extension-IPDLParametersIE }}
Extension-IPDLParameters
Extension-IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR CRITICALITY reject TYPE IPDL-TDD-ParametersLCR PRESENCE mandatory },
    . . .
IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD
                                IPSpacingFDD,
    iPLength
                                IPLength,
   iPOffset
                                IPOffset,
    seed
                                Seed,
   burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }
   iE-Extensions
                                                                                                  OPTIONAL,
IPDL-FDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-Parameters ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
   iPStart
                                IPStart,
   iPSlot
                                IPSlot,
    iP-P-CCPCH
                                IP-P-CCPCH,
   burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }
   iE-Extensions
                                                                                                  OPTIONAL,
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

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```
IPDL-TDD-ParametersLCR ::= SEQUENCE {
   iPSpacingTDD
                                IPSpacingTDD,
   iPStart
                                IPStart,
   iPSub
                                IPSub,
    burstModeParameters
                                BurstModeParameters
                                                         OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} } OPTIONAL,
    . . .
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPLength ::= ENUMERATED {
    ipl5,
    ipl10,
    . . .
IPOffset ::= INTEGER (0..9)
IP-P-CCPCH ::= ENUMERATED {
    switchOff-1-Frame,
    switchOff-2-Frames
IPSlot ::= INTEGER (0..14)
IPSpacingFDD ::= ENUMERATED {
    ipsF5,
    ipsF7,
    ipsF10,
    ipsF15,
    ipsF20,
    ipsF30,
    ipsF40,
    ipsF50,
    . . .
IPSpacingTDD ::= ENUMERATED {
    ipsT30,
    ipsT40,
    ipsT50,
    ipsT70,
    ipsT100,
    . . .
```

```
IPStart ::= INTEGER (0..4095)
IPSub ::= ENUMERATED {
   first,
   second,
   both
-- K
-- L
LAC
                  ::= OCTET STRING (SIZE (2)) --(EXCEPT ('0000'H|'FFFE'H))
LengthOfTFCI2 ::= INTEGER(1..10)
LimitedPowerIncrease ::= ENUMERATED {
   used,
   not-used
L3-Information
                        ::= BIT STRING
Load-Value-IncrDecrThres ::= INTEGER(0..100)
Load-Value ::= INTEGER(0..100)
LoadValue ::= SEQUENCE {
       uplinkLoadValue
                         INTEGER(0..100),
       downlinkLoadValue INTEGER(0..100)
-- M
MaxNrOfUL-DPCHs
                         ::= INTEGER (1..6)
MAC-c-sh-SDU-Length
                         ::= INTEGER (1..5000)
MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length
MACdPDU-Size ::= INTEGER (1..5000,...)
MACdPDU-Size-IndexList ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem
MACdPDU-Size-IndexItem ::= SEQUENCE {
   sID
                                     SID,
   mACdPDU-Size
                                     MACdPDU-Size,
                                     iE-Extensions
                                                                                                        OPTIONAL,
```

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```
MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MACdPDU-Size-IndexList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify
MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID
   mACdPDU-Size
                                       MACdPDU-Size
                                                                                OPTIONAL,
                                        ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs } }
   iE-Extensions
                                                                                                                         OPTIONAL,
MACdPDU-Size-IndexItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...)
MAChsReorderingBufferSize ::= INTEGER (1..300,...)
-- Unit kBytes
MAC-hsWindowSize
                       ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}
MaximumAllowedULTxPower
                           ::= INTEGER (-50..33)
MaxNrDLPhysicalchannels
                          ::= INTEGER (1..224)
-- 1.28Mcps TDD 97 - 224 are unused
MaxNrDLPhysicalchannelsTS ::= INTEGER (1..16)
MaxNrTimeslots
                           ::= INTEGER (1..14)
-- 1.28Mcps values 7-14 are unused
MaxNrULPhysicalchannels
                           ::= INTEGER (1..2)
MaxTFCIvalue
                           ::= INTEGER (1..1023)
MeasurementFilterCoefficient ::= ENUMERATED (k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...)
-- Measurement Filter Coefficient to be used for measurement
Measurement.ID
                           ::= INTEGER (0..1048575)
Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5
MinimumSpreadingFactor
                           ::= INTEGER (1..16)
Multi-code-info
                           ::= INTEGER (1..16)
MultipleURAsIndicator ::= ENUMERATED {
```

```
multiple-URAs-exist,
   single-URA-exists
MaxAdiustmentStep
                      ::= INTEGER(1..10)
-- Unit Slot
MeasurementChangeTime
                      ::= INTEGER (1..6000,...)
-- The MeasurementChangeTime gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms
Measurement-Feedback-Offset ::= INTEGER (0..79,...)
MeasurementHysteresisTime
                          ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms
MeasurementIncreaseDecreaseThreshold
                                    ::= CHOICE {
                             SIR-Value-IncrDecrThres.
   sir-error
                             SIR-Error-Value-IncrDecrThres,
   transmitted-code-power
                             Transmitted-Code-Power-Value-IncrDecrThres,
                             RSCP-Value-IncrDecrThres,
   round-trip-time
                             Round-Trip-Time-IncrDecrThres,
   extension-MeasurementIncreaseDecreaseThreshold
                                             Extension-MeasurementIncreaseDecreaseThreshold
Extension-MeasurementIncreaseDecreaseThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}
Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
    ID id-Load-Value-IncrDecrThres
                                CRITICALITY reject TYPE Load-Value-IncrDecrThres PRESENCE mandatory }
    PRESENCE mandatory
} |
   PRESENCE
mandatory } |
    ID id-RT-Load-Value-IncrDecrThres CRITICALITY reject TYPE RT-Load-Value-IncrDecrThres
                                                                              PRESENCE mandatory }
    ID id-NRT-Load-Information-Value-IncrDecrThres
                                            CRITICALITY reject TYPE NRT-Load-Information-Value-IncrDecrThresPRESENCE mandatory
MeasurementThreshold
                          ::= CHOICE {
   sir
                             SIR-Value,
   sir-error
                             SIR-Error-Value,
   transmitted-code-power
                             Transmitted-Code-Power-Value,
                             RSCP-Value,
   rscp
   rx-timing-deviation
                             Rx-Timing-Deviation-Value,
   round-trip-time
                             Round-Trip-Time-Value,
```

```
extension-MeasurementThreshold Extension-MeasurementThreshold
Extension-MeasurementThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementThresholdIE }}
Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::= {
      ID id-TUTRANGPSMeasurementThresholdInformation
                                                        CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation
                                                                                                                             PRESENCE mandatory }
      ID id-SFNSFNMeasurementThresholdInformation
                                                        CRITICALITY reject TYPE SFNSFNMeasurementThresholdInformation
                                                                                                                             PRESENCE mandatory
      ID id-Load-Value
                                                        CRITICALITY reject TYPE Load-Value
                                                                                                                             PRESENCE mandatory
      ID id-Transmitted-Carrier-Power-Value
                                                        CRITICALITY reject TYPE Transmitted-Carrier-Power-Value
                                                                                                                             PRESENCE mandatory
      ID id-Received-Total-Wideband-Power-Value
                                                        CRITICALITY reject TYPE Received-Total-Wideband-Power-Value
                                                                                                                             PRESENCE mandatory
      ID id-UL-Timeslot-ISCP-Value
                                                        CRITICALITY reject TYPE UL-Timeslot-ISCP-Value
                                                                                                                             PRESENCE mandatory
      ID id-RT-Load-Value
                                                        CRITICALITY reject TYPE RT-Load-Value
                                                                                                                             PRESENCE mandatory
      ID id-NRT-Load-Information-Value
                                                        CRITICALITY reject TYPE NRT-Load-Information-Value
                                                                                                                             PRESENCE mandatory } |
      ID id-Rx-Timing-Deviation-Value-LCR
                                                        CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR
                                                                                                                             PRESENCE mandatory }
      ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory
                                            ENUMERATED {v4, v8, v16}
MidambleConfigurationBurstType1And3 ::=
MidambleConfigurationBurstType2 ::=
                                        ENUMERATED {v3, v6}
MidambleConfigurationLCR ::=
                                ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}
MidambleShiftAndBurstType ::=
                                    CHOICE
    type1
                                        SEOUENCE
        midambleConfigurationBurstType1And3
                                                MidambleConfigurationBurstType1And3,
        midambleAllocationMode
                                            CHOICE {
            defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
            ueSpecificMidamble
                                                MidambleShiftLong,
        . . .
    type2
                                        SEOUENCE
        midambleConfigurationBurstType2
                                            MidambleConfigurationBurstType2,
        midambleAllocationMode
                                            CHOICE {
            defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
            ueSpecificMidamble
                                                MidambleShiftShort,
        . . .
                                        SEOUENCE
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode
                                        CHOICE {
            defaultMidamble
                                                NULL,
            ueSpecificMidamble
                                                MidambleShiftLong,
```

```
. . .
MidambleShiftLong ::=
                                    INTEGER (0..15)
MidambleShiftShort ::=
                                    INTEGER (0..5)
MidambleShiftLCR ::= SEQUENCE {
   midambleAllocationMode
                                MidambleAllocationMode,
   midambleShift
                                MidambleShiftLong
                                                         OPTIONAL,
       -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR
                                MidambleConfigurationLCR,
                                ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }
    iE-Extensions
                                                                                                 OPTIONAL,
MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
   uESpecificMidamble,
MidambleShiftLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MinUL-ChannelisationCodeLength
                                    ::= ENUMERATED {
   v4,
    v8,
    v16,
   v32,
    v64,
    v128,
    v256
ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue
                                PriorityQueue-InfoItem-to-Add,
    modifyPriorityQueue
                                PriorityQueue-InfoItem-to-Modify,
    deletePriorityQueue
                                PriorityQueue-Id,
Modulation ::= ENUMERATED {
    qPSK,
    eightPSK,
```

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```
MultiplexingPosition ::= ENUMERATED {
   fixed,
   flexible
MAChs-ResetIndicator ::= ENUMERATED{
    mAChs-NotReset
-- N
Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
NCC ::= BIT STRING (SIZE (3))
Neighbouring-UMTS-CellInformation ::= SEQUENCE (SIZE (1..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-UMTS-
CellInformationItemIE }}
Neighbouring-UMTS-CellInformationItemIE RNSAP-PROTOCOL-IES ::= {
    Neighbouring-UMTS-CellInformationItem PRESENCE mandatory }
Neighbouring-UMTS-CellInformationItem ::= SEQUENCE {
   rNC-ID
                                          RNC-ID,
   cN-PS-DomainIdentifier
                                          CN-PS-DomainIdentifier
                                                                     OPTIONAL,
   cN-CS-DomainIdentifier
                                          CN-CS-DomainIdentifier
                                                                     OPTIONAL,
   neighbouring-FDD-CellInformation
                                          Neighbouring-FDD-CellInformation
                                                                             OPTIONAL,
   neighbouring-TDD-CellInformation
                                          Neighbouring-TDD-CellInformation
                                                                             OPTIONAL,
   iE-Extensions
                                          ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation
                                                         CRITICALITY ignore
                                                                                 EXTENSION
                                                                                            Neighbouring-LCR-TDD-CellInformation
                                                                                                                                      PRESENCE
optional },
    . . .
Neighbouring-FDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem
Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
   c-ID
                                      C-ID,
   uARFCNforNu
                                      UARFCN,
   uARFCNforNd
                                      UARFCN,
    frameOffset
                                      FrameOffset
                                                          OPTIONAL,
   primaryScramblingCode
                                      PrimaryScramblingCode,
   primaryCPICH-Power
                                      PrimaryCPICH-Power
                                                             OPTIONAL,
```

```
cellIndividualOffset
                                        CellIndividualOffset
                                                                OPTIONAL.
    txDiversitvIndicator
                                        TxDiversitvIndicator,
    sTTD-SupportIndicator
                                        STTD-SupportIndicator
                                                                OPTIONAL,
    closedLoopModel-SupportIndicator
                                        ClosedLoopModel-SupportIndicator
                                                                            OPTIONAL,
    closedLoopMode2-SupportIndicator
                                        ClosedLoopMode2-SupportIndicator
                                                                             OPTIONAL,
                                        ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-RestrictionStateIndicator
                                                    CRITICALITY ignore
                                                                                 EXTENSION RestrictionStateIndicator
                                                                                                                       PRESENCE optional }
      ID id-DPC-Mode-Change-SupportIndicator
                                                CRITICALITY ignore
                                                                                    DPC-Mode-Change-SupportIndicator
                                                                                                                          PRESENCE optional } |
                                                                         EXTENSION
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION CoverageIndicator
                                                                                                                 PRESENCE optional }
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
                                                                                                                 PRESENCE optional }
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                         EXTENSION HCS-Prio
                                                                                                                 PRESENCE optional } |
     ID id-CellCapabilityContainer-FDD
                                                CRITICALITY ignore
                                                                         EXTENSION CellCapabilityContainer-FDD
                                                                                                                          PRESENCE optional } |
     ID id-SNA-Information
                                                                         EXTENSION SNA-Information
                                                                                                        PRESENCE optional },
                                            CRITICALITY ignore
NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    uARFCN
                                        UARFCN,
    primaryScramblingCode
                                        PrimaryScramblingCode,
                                        ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}
Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
                                                CRITICALITY ignore TYPE
    { ID id-Neighbouring-GSM-CellInformation
                                                                            Neighbouring-GSM-CellInformationIEs PRESENCE mandatory }
Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem
Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cellIndividualOffset
                                        CellIndividualOffset
                                                                OPTIONAL
    bSIC
                                        BSIC,
    band-Indicator
                                        Band-Indicator,
    bcch-arfcn
                                        BCCH-ARFCN,
    iE-Extensions
                                        ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
```

```
Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION CoverageIndicator
                                                                                                                     PRESENCE optional }
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
                                                                                                                     PRESENCE optional
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                         EXTENSION HCS-Prio
                                                                                                                     PRESENCE optional
      ID id-SNA-Information
                                            CRITICALITY ignore
                                                                         EXTENSION SNA-Information
                                                                                                                     PRESENCE optional
      ID id-GERAN-Cell-Capability
                                            CRITICALITY ignore
                                                                         EXTENSION GERAN-Cell-Capability
                                                                                                                     PRESENCE optional
      ID id-GERAN-Classmark
                                            CRITICALITY ignore
                                                                         EXTENSION GERAN-Classmark
                                                                                                                     PRESENCE optional
    { ID id-ExtendedGSMCellIndividualOffset CRITICALITY ignore
                                                                         EXTENSION ExtendedGSMCellIndividualOffset
                                                                                                                    PRESENCE optional },
Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem
Neighbouring-TDD-CellInformationItem ::= SEOUENCE {
    c-ID
                                    C-ID,
    11ARFCNforNt
                                    HARFON.
    frameOffset
                                    FrameOffset
                                                         OPTIONAL,
    cellParameterID
                                    CellParameterID,
    syncCase
                                    SyncCase,
    timeSlot
                                    TimeSlot
                                                         OPTIONAL
    -- This IE shall be present if Sync Case = Case1 -- ,
                                                             OPTIONAL
    sCH-TimeSlot
                                    SCH-TimeSlot
    -- This IE shall be present if Sync Case = Case2 -- ,
    sCTD-Indicator
                            SCTD-Indicator,
    cellIndividualOffset
                                    CellIndividualOffset
                                                             OPTIONAL,
    dPCHConstantValue
                                    DPCHConstantValue
                                                        OPTIONAL,
    pCCPCH-Power
                                    PCCPCH-Power
                                                             OPTIONAL.
                                    ProtocolExtensionContainer { { Neighbouring-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-RestrictionStateIndicator
                                                     CRITICALITY ignore
                                                                                 EXTENSION RestrictionStateIndicator
                                                                                                                        PRESENCE optional } |
      ID id-CoverageIndicator
                                                                                                                  PRESENCE optional }
                                            CRITICALITY ignore
                                                                         EXTENSION CoverageIndicator
                                                                                                                  PRESENCE optional }
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
      ID id-HCS-Prio
                                                                                                                  PRESENCE optional }
                                            CRITICALITY ignore
                                                                         EXTENSION HCS-Prio
      ID id-CellCapabilityContainer-TDD
                                                     CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
                                                                                                                        PRESENCE optional } |
     ID id-SNA-Information
                                                     CRITICALITY ignore EXTENSION SNA-Information
                                                                                                                  PRESENCE optional },
NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlot
                                        TimeSlot
                                                                     OPTIONAL,
    midambleShiftAndBurstType
                                        MidambleShiftAndBurstType
                                                                     OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    . . .
```

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```
NRTLoadInformationValue ::= SEQUENCE {
       uplinkNRTLoadInformationValue
                                            INTEGER(0..3),
        downlinkNRTLoadInformationValue
                                            INTEGER(0..3)
-- 0
OnModification ::= SEOUENCE {
    measurementThreshold
                          MeasurementThreshold,
   iE-Extensions
                            ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    . . .
OnModification-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
OnModificationInformation ::= SEOUENCE {
    informationThreshold InformationThreshold
                                                    OPTIONAL,
   iE-Extensions
                            ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
    . . .
OnModificationInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
-- P
PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
    terminating-background-call,
    terminating-low-priority-signalling,
    terminating-high-priority-signalling,
    terminating-cause-unknown
-- See in [16]
PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
   p-tmsi-gsm-map,
    imsi-ds-41,
    tmsi-ds-41,
    . . .
```

```
-- See in [16]
PartialReportingIndicator ::= ENUMERATED {
    partial-reporting-allowed
PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
    crc-not-included
PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm
PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem
PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                    ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PC-Preamble ::= INTEGER(0..7,...)
PDSCHCodeMapping ::= SEQUENCE {
    dL-ScramblingCode
                            DL-ScramblingCode,
    signallingMethod
                            PDSCHCodeMapping-SignallingMethod,
                            ProtocolExtensionContainer { { PDSCHCodeMapping-ExtIEs} } OPTIONAL,
    iE-Extensions
PDSCHCodeMapping-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod ::= CHOICE {
    pDSCHCodeMapping-SignallingMethod-CodeRange
                                                    PDSCHCodeMapping-SignallingMethod-CodeRange,
   pDSCHCodeMapping-SignallingMethod-TFCIRange
                                                    PDSCHCodeMapping-SignallingMethod-TFCIRange,
   pDSCHCodeMapping-SignallingMethod-Explicit
                                                    PDSCHCodeMapping-SignallingMethod-Explicit,
    pDSCHCodeMapping-SignallingMethod-Replace
                                                    PDSCHCodeMapping-SignallingMethod-Replace
PDSCHCodeMapping-SignallingMethod-CodeRange ::= SEQUENCE (SIZE (1..maxNoCodeGroups)) OF
```

```
SEQUENCE .
       spreadingFactor
                                SpreadingFactor,
       multi-code-info
                                Multi-code-info,
       start-CodeNumber
                                CodeNumber,
       stop-CodeNumber
                                CodeNumber,
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-TFCIRange ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
   SEOUENCE {
       maxTFCIvalue
                                MaxTFCIvalue,
       spreadingFactor
                                SpreadingFactor,
       multi-code-info
                                Multi-code-info,
       codeNumber
                                CodeNumber,
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-Explicit ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
   SEQUENCE {
                                SpreadingFactor,
       spreadingFactor
       multi-code-info
                                Multi-code-info,
       codeNumber
                                CodeNumber,
       iE-Extensions
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs} } OPTIONAL,
PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
PDSCHCodeMapping-SignallingMethod-Replace ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
   SEQUENCE {
       tfci-Field2
                                    TFCS-MaxTFCI-field2-Value,
       spreadingFactor
                                    SpreadingFactor,
                                    Multi-code-info,
       multi-CodeInfo
       codeNumber
                                    CodeNumber,
                                    ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs} }
       iE-Extensions
    . . .
PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

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```
Periodic ::= SEQUENCE {
   reportPeriodicity
                            ReportPeriodicity,
   iE-Extensions
                            ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    . . .
Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PeriodicInformation ::= SEQUENCE {
   informationReportPeriodicity
                                        InformationReportPeriodicity,
   iE-Extensions
                                        ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
    . . .
PeriodicInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Permanent-NAS-UE-Identity ::= CHOICE {
   imsi
                IMSI,
    . . .
Phase-Reference-Update-Indicator ::= ENUMERATED {
    Phase-reference-needs-to-be-changed
PLMN-Identity ::= OCTET STRING (SIZE(3))
PowerAdjustmentType ::= ENUMERATED {
   none,
   common,
    individual
PowerOffset
                       ::= INTEGER (0..24)
PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters
PRCDeviation ::= ENUMERATED {
   prcd1,
   prcd2,
   prcd5,
   prcd10,
```

```
Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
Pre-emptionVulnerability ::= ENUMERATED {
   not-pre-emptable,
   pre-emptable
PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PrimaryCPICH-Power
                           ::= INTEGER (-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm
PrimaryCPICH-EcNo
                           ::= INTEGER (-30..30)
Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
   primary-CPICH-may-be-used,
   primary-CPICH-shall-not-be-used
PrimaryCCPCH-RSCP
                           ::= INTEGER (0..91)
-- According to maping in [14]
PrimaryScramblingCode
                                ::= INTEGER (0..511)
                           ::= INTEGER (0..15)
PriorityLevel
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority
PriorityQueue-Id ::= INTEGER (0..maxNrOfPrioQueues-1)
PriorityQueue-InfoList ::= SEQUENCE (SIZE (1...maxNrOfPrioQueues)) OF PriorityQueue-InfoItem
PriorityQueue-InfoItem ::= SEQUENCE {
   priorityQueue-Id
                                        PriorityQueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    t1
                                        T1,
    discardTimer
                                        DiscardTimer
                                                                    OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                    OPTIONAL,
   mACdPDU-Size-Index
                                        MACdPDU-Size-IndexList,
    iE-Extensions
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }
                                                                                                                 OPTIONAL,
```

```
PriorityQueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF ModifyPriorityQueue
PriorityOueue-InfoItem-to-Add ::= SEOUENCE {
    priorityQueue-Id
                                        PriorityQueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
   t1
    discardTimer
                                        DiscardTimer
                                                                                 OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                 OPTIONAL,
                                        MACdPDU-Size-IndexList-to-Modify,
    mACdPDU-Size-Index-to-Modify
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs } } 
    iE-Extensions
                                                                                                                        OPTIONAL,
    . . .
PriorityQueue-InfoItem-to-Add-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityOueue-InfoItem-to-Modify ::= SEOUENCE {
    priorityOueue-Id
                                        PriorityQueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID
                                                                                 OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                                 OPTIONAL,
                                                                                 OPTIONAL,
    discardTimer
                                        DiscardTimer
                                                                                 OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize
                                                                                 OPTIONAL,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                 OPTIONAL,
    mACdPDU-Size-Index-to-Modify
                                        MACdPDU-Size-IndexList-to-Modify
                                                                                             OPTIONAL,
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } } 
    iE-Extensions
                                                                                                                           OPTIONAL,
PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PropagationDelay
                            ::= INTEGER (0..255)
PunctureLimit
                            ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- Q
QE-Selector ::= ENUMERATED {
    selected,
```

```
non-selected
Qth-Parameter ::= INTEGER (-20..0)
-- Unit dB, Step 1dB
-- R
RAC
                   ::= OCTET STRING (SIZE(1))
RANAP-RelocationInformation
                               ::= BIT STRING
Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s
RateMatchingAttribute
                               ::= INTEGER (1..maxRateMatching)
RB-Identity
                               ::= INTEGER (0..31)
RB-Info ::= SEQUENCE (SIZE(1..maxNoOfRB)) OF RB-Identity
Received-Total-Wideband-Power-Value ::= Received-total-wide-band-power
Received-Total-Wideband-Power-Value-IncrDecrThres ::= INTEGER(0..620)
-- Unit dB Step 0.1dB
-- e.g. value 100 means 10dB
RefTFCNumber ::= INTEGER (0..15)
RepetitionLength
                           ::= INTEGER (1..63)
RepetitionPeriod ::= ENUMERATED {
   v1,
    v2,
    v4,
   v8,
   v16,
   v32,
    v64
RepetitionNumber0 ::= INTEGER (0..255)
RepetitionNumber1 ::= INTEGER (1..256)
ReportCharacteristics ::= CHOICE {
                       NULL,
    onDemand
   periodic
                       Periodic,
    eventA
                        EventA,
                        EventB,
    eventB
    eventC
                        EventC,
```

```
event.D
                      EventD,
    eventE
                      EventE,
    eventF
                       EventF,
    extension-ReportCharacteristics
                                      Extension-ReportCharacteristics
Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}
Extension-ReportCharacteristicsIE RNSAP-PROTOCOL-IES ::= {
    { ID id-OnModification CRITICALITY reject TYPE OnModification
                                                                    PRESENCE mandatory }
}
ReportPeriodicity ::= CHOICE {
   ten-msec
                          INTEGER (1..6000,...),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
                   INTEGER (1..60,...),
-- Unit min, Step 1min
RequestedDataValue ::= SEQUENCE {
    qA-AccessPointPositionwithAltitude
                                             GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
    iPDLParameters
                                             IPDLParameters
                                                                                       OPTIONAL,
    dGPSCorrections
                                             DGPSCorrections
                                                                                       OPTIONAL,
    gPS-NavigationModel-and-TimeRecovery
                                             GPS-NavigationModel-and-TimeRecovery
                                                                                       OPTIONAL,
   gPS-Ionospheric-Model
                                             GPS-Ionospheric-Model
                                                                                       OPTIONAL,
                                             GPS-UTC-Model
   qPS-UTC-Model
                                                                                       OPTIONAL,
   qPS-Almanac
                                             GPS-Almanac
                                                                                       OPTIONAL,
                                             GPS-RealTime-Integrity
                                                                                       OPTIONAL,
   gPS-RealTime-Integrity
   qPS-RX-POS
                                             GPS-RX-POS
                                                                                       OPTIONAL,
    sFNSFN-GA-AccessPointPosition
                                             GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
                                             ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }
    iE-Extensions
                                                                                                           OPTIONAL,
RequestedDataValue-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
RequestedDataValueInformation ::= CHOICE {
    informationAvailable
                              InformationAvailable,
    informationNotAvailable
                              InformationNotAvailable
RestrictionStateIndicator ::= ENUMERATED {
   cellNotResevedForOperatorUse,
    cellResevedForOperatorUse,
```

OPTIONAL,

```
RL-ID
                      ::= INTEGER (0..31)
RL-Set-ID
                      ::= INTEGER (0..31)
RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item
RL-Specific-DCH-Info-Item ::= SEQUENCE {
   dCH-id
                           DCH-ID,
   bindingID
                           BindingID OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    transportLayerAddress TransportLayerAddress
                                                       OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
   iE-Extensions
                           ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} } OPTIONAL,
RL-Specific-DCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                      ::= INTEGER (0..4095)
RNC-ID
Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)
Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [23]
RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [24]
RSCP-Value-IncrDecrThres ::= INTEGER (0..126)
Received-total-wide-band-power
                                           ::= INTEGER (0..621)
-- According to mapping in [23]
RT-Load-Value-IncrDecrThres ::= INTEGER(0..100)
RT-Load-Value ::= INTEGER(0..100)
RTLoadValue ::= SEQUENCE {
       uplinkRTLoadValue
                                INTEGER(0..100),
       downlinkRTLoadValue
                               INTEGER (0..100)
RxTimingDeviationForTA
                                   ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
-- For 1.28Mcps TDD this IE must be set to 0.
```

```
Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]
Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
--According to mapping in [24][1.28Mcps TDD only]
-- S
SAC
                    ::= OCTET STRING (SIZE (2))
SAI ::= SEQUENCE {
   pLMN-Identity
                        PLMN-Identity,
   lAC
                        LAC,
    sAC
                        SAC,
    iE-Extensions
                        ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SAT-ID ::= INTEGER (0..63)
SCH-TimeSlot
                            ::= INTEGER (0..6)
ScaledAdjustmentRatio
                                ::= INTEGER(0..100)
-- AdjustmentRatio = ScaledAdjustmentRatio / 100
Secondary-CCPCH-Info::= SEQUENCE {
    fDD-S-CCPCH-Offset
                                            FDD-S-CCPCH-Offset,
    dl-ScramblingCode
                                            DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
    dl-TFCS
    secondaryCCPCH-SlotFormat
                                            SecondaryCCPCH-SlotFormat,
    tFCI-Presence
                                            TFCI-Presence OPTIONAL,
    -- This IE shall be present only if the Secondary CCPCH Slot Format IE is equal to any of the values from 8 to 17
    multiplexingPosition
                                            MultiplexingPosition,
    sTTD-Indicator
                                            STTD-Indicator,
    fACH-PCH-InformationList
                                            FACH-PCH-InformationList,
    iB-schedulingInformation
                                            IB-SchedulingInformation,
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Secondary-CCPCH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-Info-TDD::= SEQUENCE {
   dl-TFCS
                                            TFCS,
    tFCI-Coding
                                            TFCI-Coding,
```

```
secondary-CCPCH-TDD-InformationList
                                            Secondary-CCPCH-TDD-InformationList,
   fACH-InformationList
                                            FACH-InformationList,
   pCH-InformationList
                                            PCH-InformationList,
   iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    . . .
Secondary-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information ::= SEQUENCE {
  dl-ScramblingCode
                                            DL-ScramblingCode,
   fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
  iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
Secondary-CPICH-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information-Change ::= CHOICE {
                                    Secondary-CPICH-Information,
new-secondary-CPICH
secondary-CPICH-shall-not-be-used
. . .
Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
   dl-TFCS
                                            TFCS,
    tFCI-Coding
                                            TFCI-Coding,
    secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList
                                            FACH-InformationList,
   pCH-InformationList
                                            PCH-InformationList,
                                            ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
   iE-Extensions
Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem
Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
   midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
   tFCI-Presence
                                    TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information
                                                        Secondary-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset
                                    TDD-PhysicalChannelOffset,
    repetitionLength
                                    RepetitionLength,
```

```
repetitionPeriod
                                    RepetitionPeriod,
   iE-Extensions
                                    ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem
Secondary-LCR-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                                TimeSlotLCR,
   midambleShiftLCR
                                                MidambleShiftLCR,
   tFCI-Presence
                                                TFCI-Presence,
   secondary-LCR-CCPCH-TDD-Code-Information
                                                Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset
                                                TDD-PhysicalChannelOffset,
   repetitionLength
                                                RepetitionLength,
   repetitionPeriod
                                                RepetitionPeriod,
                                                ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem
Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
    iE-Extensions
                                    ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    . . .
Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-Code-Information ::= SEOUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem
Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
   tDD-ChannelisationCodeLCR
                                    TDD-ChannelisationCodeLCR,
   s-CCPCH-TimeSlotFormat-LCR
                                    TDD-DL-DPCH-TimeSlotFormat-LCR,
   iE-Extensions
                                    ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

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```
SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
    . . .
Seed ::= INTEGER (0..63)
SFN ::= INTEGER (0..4095)
SFNSFN-FDD ::= INTEGER(0..614399)
SFNSFN-TDD ::= INTEGER(0..40961)
GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE {
    geographicalCoordinate
                                                 GeographicalCoordinate,
    altitudeAndDirection
                                                 GA-AltitudeAndDirection OPTIONAL,
                                                 ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
   iE-Extensions
GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit
                                        SFNSFNChangeLimit
                                                                             OPTIONAL,
   predictedSFNSFNDeviationLimit
                                        PredictedSFNSFNDeviationLimit
                                                                             OPTIONAL,
                                    ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }
    iE-Extensions
                                                                                                                         OPTIONAL,
    . . .
SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNMeasurementValueInformation ::= SEQUENCE {
    \verb|successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation| \\
                                                                                         SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-ID
                        UC-ID,
```

```
sFNSFNValue
                                        SFNSFNValue,
            sFNSFNQuality
                                        SFNSFNQuality
                                                                         OPTIONAL,
            sFNSFNDriftRate
                                        SFNSFNDriftRate,
            sFNSFNDriftRateQuality
                                        SFNSFNDriftRateQuality,
            sFNSFNTimeStampInformation SFNSFNTimeStampInformation
                                                                         OPTIONAL,
                                        ProtocolExtensionContainer { {
            iE-Extensions
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
                                                                                                 OPTIONAL,
       },
   unsuccessfull Neighbouring Cell SFNSFNObserved Time Difference Measurement Information\\
                                                                                         SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
            uC-ID
                        UC-ID,
                                ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
            iE-Extensions
ExtIEs} }
                OPTIONAL,
           . . .
       },
                        ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }
    iE-Extensions
                                                                                                            OPTIONAL,
SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
SFNSFNOuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD
                            SFN,
    sFNSFNTimeStamp-TDD
                            SFNSFNTimeStamp-TDD,
    . . .
SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN
                        SFN.
    timeSlot
                        TimeSlot,
                                    ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
    iE-Extensions
```

```
SFNSFNTimeStamp-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNValue ::= CHOICE {
   sFNSFN-FDD
                   SFNSFN-FDD,
   sFNSFN-TDD
                   SFNSFN-TDD,
SID ::= INTEGER (0..maxNrOfPDUIndexes-1)
SIR-Error-Value
                    ::= INTEGER (0..125)
SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)
SIR-Value
                      ::= INTEGER (0..63)
-- According to mapping in 25.215/25.225
SIR-Value-IncrDecrThres ::= INTEGER (0..62)
SecondaryCCPCH-SlotFormat ::= INTEGER (0..17,...)
-- refer to 25.211
S-FieldLength
                          ::= ENUMERATED {
   v1,
   v2,
SNA-Information ::= SEQUENCE {
   pLMN-Identity PLMN-Identity,
  listOfSNAs
                                                                      OPTIONAL,
                      ListOfSNAs
                      ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
  iE-Extensions
SNA-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs, ...)) OF SNACode
SNACode ::= INTEGER (0..65535)
SpecialBurstScheduling ::= INTEGER (1..256)
```

```
SplitType ::= ENUMERATED {
   hard,
   logical
SpreadingFactor
                       ::= INTEGER (4 | 8 | 16 | 32 | 64 | 128 | 256)
S-RNTI
                       ::= INTEGER (0..1048575)
-- From 0 to 2^20-1
S-RNTI-Group
                        ::= SEQUENCE {
   sRNTI
                            S-RNTI,
   sRNTI-BitMaskIndex
                            ENUMERATED {
       b1,
       b2,
       b3,
       b4,
       b5,
       b6,
       b7,
       b8,
       b9,
       b10,
       b11,
       b12,
       b13,
       b14,
       b15,
       b16,
       b17,
       b18,
       b19
SRB-Delay ::= INTEGER(0..7,...)
SSDT-CellID ::= ENUMERATED {
   a,
   b,
   C,
   d,
    f,
   g,
   h
SSDT-CellID-Length ::= ENUMERATED {
   short,
    medium,
```

```
long
SSDT-Indication ::= ENUMERATED {
    sSDT-active-in-the-UE,
    sSDT-not-active-in-the-UE
SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-supported,
    sSDT-not-supported
STTD-Indicator ::= ENUMERATED {
    active,
    inactive
STTD-SupportIndicator ::= ENUMERATED {
    sTTD-Supported,
    sTTD-not-Supported
Support-8PSK ::= ENUMERATED {
    v8PSK-Supported
SyncCase ::= INTEGER (1..2,...)
SynchronisationConfiguration ::= SEQUENCE {
   n-INSYNC-IND
                          INTEGER (1..256),
   n-OUTSYNC-IND
                           INTEGER (1..256),
    t-RLFAILURE
                           INTEGER (0..255),
-- Unit seconds, Range Os .. 25.5s, Step 0.1s
                           ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }
    iE-Extensions
                                                                                                     OPTIONAL,
    . . .
SynchronisationConfiguration-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
SYNC-UL-ProcParameters ::= SEQUENCE {
    maxSYNC-UL-transmissions
                                    ENUMERATED {v1, v2, v4, v8, ...},
   powerRampStep
                                    INTEGER (0..3, ...),
T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}
```

```
TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB
TDD-ChannelisationCode
                                 ::= ENUMERATED {
    chCodeldiv1,
    chCode2div1,
    chCode2div2,
    chCode4div1.
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2.
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode
                                     TDD-ChannelisationCode,
    modulation
                                     Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
    . . .
TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem
TDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode
                                         UL-FP-Mode OPTIONAL,
    toAWS
                                         ToAWS
                                                     OPTIONAL,
    toAWE
                                         ToAWE
                                                     OPTIONAL,
```

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```
TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    dCH-SpecificInformationList
                                        TDD-DCHs-to-ModifySpecificInformationList,
   iE-Extensions
                                        ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem
TDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
   ul-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    dl-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
   ul-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional } |
    { ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                 PRESENCE optional },
    . . .
TDD-DL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem
TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
                                    ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem
TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
                                            DPCH-ID,
    dPCH-ID
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR
                                            TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                          OPTIONAL,
```

```
TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
   qPSK
                                QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
   eightPSK
                                EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TDD-DPCHOffset ::= CHOICE {
    initialOffset
                        INTEGER (0..255),
   noinitialOffset
                       INTEGER (0..63)
TDD-PhysicalChannelOffset
                               ::= INTEGER (0..63)
TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
    . . .
TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
    . . .
TDD-UL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem
TDD-UL-Code-InformationItem ::= SEQUENCE {
   dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
   iE-Extensions
                                    ProtocolExtensionContainer { {TDD-UL-Code-InformationItem-ExtIEs} } OPTIONAL,
TDD-UL-Code-InformationItem-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationItem
```

```
TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR
                                            TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                           OPTIONAL,
    . . .
TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
   qPSK
                                QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
   eightPSK
                                EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    . . .
QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)
EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TFCI-Coding ::= ENUMERATED {
   v4,
   v8,
    v16.
    v32,
TFCI-PC-SupportIndicator ::= ENUMERATED {
    tFCI-PC-model-supported,
    tFCI-PC-mode2-supported
TFCI-Presence ::= ENUMERATED {
   present,
   not-present
TFCI-SignallingMode ::= ENUMERATED {
   normal,
    split
                    ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence
TGPRC
                    ::= INTEGER (0..511)
-- 0 = infinity
```

```
TGPSID
                    ::= INTEGER (1.. maxTGPS)
TGSN
                    ::= INTEGER (0..14)
TimeSlot
                        ::= INTEGER (0..14)
TimeSlotLCR ::= INTEGER (0..6)
TimingAdvanceApplied ::= ENUMERATED {
   yes,
   no
ToAWE
                       ::= INTEGER (0..2559)
ToAWS
                       ::= INTEGER (0..1279)
TrafficClass ::= ENUMERATED {
    conversational,
   streaming,
   interactive,
   background,
    . . .
Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
   SEQUENCE {
        tGPSID
                        TGPSID,
        tGSN
                        TGSN,
        tGL1
                        GapLength,
        tGL2
                        GapLength OPTIONAL,
        tGD
                        TGD,
        tGPL1
                        GapDuration,
                        GapDuration OPTIONAL,
       tGPL2
                        UL-DL-mode,
       uL-DL-mode
        downlink-Compressed-Mode-Method
                                            Downlink-Compressed-Mode-Method
                                                                                OPTIONAL,
           -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method
                                            Uplink-Compressed-Mode-Method
                                                                                OPTIONAL,
            -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
       dL-FrameType
                            DL-FrameType,
       delta-SIR1
                        DeltaSIR,
       delta-SIR-afterl
                           DeltaSIR,
                       DeltaSIR
                                    OPTIONAL,
       delta-SIR2
        delta-SIR-after2 DeltaSIR
                                        OPTIONAL,
                                ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
Transmission-Gap-Pattern-Sequence-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Transmission-Gap-Pattern-Sequence-ScramblingCode-Information
   code-change,
   nocode-change
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEOUENCE {
       tGPSID
                        TGPSID,
       tGPRC
                        TGPRC,
        tGCFN
                        CFN,
                            ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
       iE-Extensions
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalDynamic ::= ENUMERATED {
   msec-10,
   msec-20,
   msec-40,
   msec-80,
    . . .
TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
   msec-10,
   msec-20,
   msec-40,
   msec-80,
    dynamic,
    . . .
TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
Transmitted-Carrier-Power-Value-IncrDecrThres ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
TUTRANGPS ::= SEQUENCE {
   ms-part
                INTEGER (0..16383),
   ls-part
                INTEGER (0..4294967295)
```

```
TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s
TUTRANGPSDriftRateOuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s
TUTRANGPSAccuracyClass ::= ENUMERATED {
   accuracy-class-A,
   accuracy-class-B,
   accuracy-class-C,
TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit
                                         TUTRANGPSChangeLimit
                                                                               OPTIONAL,
   predictedTUTRANGPSDeviationLimit
                                         PredictedTUTRANGPSDeviationLimit
                                                                               OPTIONAL,
   iE-Extensions
                                 OPTIONAL,
TUTRANGPSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
       tUTRANGPS
                                     TUTRANGPS,
       tUTRANGPSQuality
                                     TUTRANGPSQuality
                                                                    OPTIONAL,
       tUTRANGPSDriftRate
                                     TUTRANGPSDriftRate,
       tUTRANGPSDriftRateQuality
                                     TUTRANGPSDriftRateOuality
                                                                    OPTIONAL,
       iEe-Extensions
                                     ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs} }
                                                                                                                     OPTIONAL,
TUTRANGPSMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
TransportBearerID
                      ::= INTEGER (0..4095)
TransportBearerRequestIndicator
                                 ::= ENUMERATED {
   bearer-requested,
```

```
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```

```
bearer-not-requested,
TransportBlockSize
                            ::= INTEGER (0..5000)
-- Unit is bits
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors
                            SEQUENCE {
       betaC
                                BetaCD,
       betaD
                                BetaCD,
       refTFCNumber
                                RefTFCNumber
                                                OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs} } OPTIONAL,
        . . .
   refTFCNumber
                            RefTFCNumber,
    . . .
SignalledGainFactors-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS ::= SEOUENCE {
    tFCSvalues
                        CHOICE {
       no-Split-in-TFCI
                                    TFCS-TFCSList,
        split-in-TFCI
                                    SEQUENCE {
            transportFormatCombination-DCH
                                                TFCS-DCHList,
            signallingMethod
                                                CHOICE {
                tFCI-Range
                                                TFCS-MapingOnDSCHList,
                explicit
                                                     TFCS-DSCHList,
                . . .
            iE-Extensions
                                                ProtocolExtensionContainer { { Split-in-TFCI-ExtIEs} } OPTIONAL,
                        ProtocolExtensionContainer { { TFCS-ExtIEs} }
    iE-Extensions
                                                                             OPTIONAL,
Split-in-TFCI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
```

```
SEQUENCE {
       cTFC
                           TFCS-CTFC,
       tFC-Beta
                      TransportFormatCombination-Beta
                                                        OPTIONAL,
       -- The IE shall be present if the TFCS concerns a UL DPCH [FDD - or PRACH channel in FDD]
       iE-Extensions ProtocolExtensionContainer { TFCS-TFCSList-ExtIEs} }
TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-CTFC ::= CHOICE {
   ctfc2bit
                                       INTEGER (0..3),
   ctfc4bit
                                       INTEGER (0..15),
   ctfc6bit
                                       INTEGER (0..63),
   ctfc8bit
                                       INTEGER (0..255),
   ctfc12bit
                                       INTEGER (0..4095),
   ctfc16bit
                                       INTEGER (0..65535),
    ctfcmaxbit
                                       INTEGER (0..maxCTFC)
TFCS-DCHList ::= SEQUENCE (SIZE (1..maxTFCI1Combs)) OF
    SEOUENCE {
       CTFC
                           TFCS-CTFC,
       iE-Extensions
                           ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs} }
                                                                                      OPTIONAL,
TFCS-DCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
TFCS-MapingOnDSCHList ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
   SEOUENCE {
       maxTFCI-field2-Value
                                 TFCS-MaxTFCI-field2-Value,
       cTFC-DSCH
                               TFCS-CTFC,
       iE-Extensions
                                   ProtocolExtensionContainer { { TFCS-MapingOnDSCHList-ExtIEs} } OPTIONAL,
TFCS-MapingOnDSCHList-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxTFCI2Combs-1)
TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
   SEQUENCE {
       cTFC-DSCH
                               TFCS-CTFC,
                                   ProtocolExtensionContainer { { TFCS-DSCHList-ExtIEs} }
       iE-Extensions
                                                                                              OPTIONAL,
```

```
TFCS-DSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet ::= SEQUENCE {
    dvnamicParts
                           TransportFormatSet-DynamicPartList,
    semi-staticPart
                           TransportFormatSet-Semi-staticPart,
                            ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
       nrOfTransportBlocks
                                NrOfTransportBlocks,
       transportBlockSize
                                TransportBlockSize
                                                        OPTIONAL
        -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
                           TransportFormatSet-ModeDP,
                                ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeDP ::= CHOICE {
                        TDD-TransportFormatSet-ModeDP,
   notApplicable
                        NULL,
TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation
                                            TransmissionTimeIntervalInformation
                                                                                    OPTIONAL,
    -- This IE shall be present if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is
absent.
                                            ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
```

```
SEQUENCE {
       transmissionTimeInterval
                                    TransmissionTimeIntervalDynamic,
       iE-Extensions
                                ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
TransmissionTimeIntervalInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in 25.215/25.225
Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)
TransportFormatManagement ::= ENUMERATED {
    cell-based,
   ue-based,
    . . .
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTime
                           TransmissionTimeIntervalSemiStatic,
                            ChannelCodingType,
    channelCoding
                                                OPTIONAL
    codingRate
                        CodingRate
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
                                RateMatchingAttribute,
    rateMatcingAttribute
                       CRC-Size,
    cRC-Size
   mode
                        TransportFormatSet-ModeSSP,
                            ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
    iE-Extensions
TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeSSP ::= CHOICE {
                    SecondInterleavingMode,
   notApplicable
                           NULL,
TransportLayerAddress
                                ::= BIT STRING (SIZE(1..160, ...))
TrCH-SrcStatisticsDescr
                           ::= ENUMERATED {
   speech,
   rRC,
   unknown,
```

```
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
TxDiversityIndicator
                       ::= ENUMERATED {
    true,
    false
TypeOfError ::= ENUMERATED {
   not-understood,
   missing,
-- IJ
UARFCN
                       ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See 25.101, 25.105
UDRE ::= ENUMERATED {
   lessThan1,
   between1-and-4,
   between4-and-8,
   over8,
    . . .
UE-Capabilities-Info ::= SEQUENCE {
   hSDSCH-Physical-Layer-Category
                                        INTEGER (1..64,...),
   mAChs-Reordering-Buffer-Size
                                        MAChsReorderingBufferSize,
    iE-Extensions
                                        ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }
                                                                                                               OPTIONAL,
    . . .
UE-Capabilities-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation ::= ENUMERATED {
   dedicated-pilots-for-channel-estimation-supported
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH ::= ENUMERATED {
```

```
dedicated-pilots-for-channel-estimation-supported
UL-DL-mode ::= ENUMERATED {
   ul-only,
   dl-only,
   both-ul-and-dl
UL-Timeslot-Information::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem
UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
   midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
   tFCI-Presence
                                    TFCI-Presence,
   uL-Code-Information
                                    TDD-UL-Code-Information,
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem
UL-TimeslotLCR-InformationItem ::= SEOUENCE {
                                            TimeSlotLCR,
    timeSlotLCR
   midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
   uL-Code-LCR-InformationList
                                        TDD-UL-Code-LCR-Information,
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }
                                                                                                                       OPTIONAL,
    . . .
UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem
UL-TimeSlot-ISCP-InfoItem ::= SEOUENCE {
    timeSlot
                                TimeSlot,
   uL-TimeslotISCP
                                UL-TimeslotISCP,
   iE-Extensions
                                ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
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```

```
UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeSlot-ISCP-LCR-InfoItem
UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
   timeSlotLCR
                                   TimeSlotLCR,
   iSCP
                                   UL-Timeslot-ISCP-Value,
   iE-Extensions
                                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} } OPTIONAL,
UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-ISCP-Value ::= UL-TimeslotISCP
UL-Timeslot-ISCP-Value-IncrDecrThres ::= INTEGER(0..126)
-- Unit dB. Step 0.5dB
-- e.g. Value 100 means 50dB
UL-TimingAdvanceCtrl-LCR ::= SEQUENCE {
    sync-UL-codes-bitmap
                                                BIT STRING (SIZE(8)),
    fPACH-info
                                                FPACH-Information,
   prxUpPCHdes
                                                INTEGER (-120 .. -58, ...),
                                                SYNC-UL-ProcParameters,
   syncUL-procParameter
    mMax
                                                INTEGER (1..32),
Uplink-Compressed-Mode-Method ::= ENUMERATED {
    sFdiv2,
   higher-layer-scheduling,
UL-SIR
                       ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.
UC-ID ::= SEQUENCE {
   rNC-ID
                       RNC-ID.
                       C-ID,
   c-ID
                           ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
   iE-Extensions
UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
UL-DPCCH-SlotFormat
                            ::= INTEGER (0..5,...)
UL-FP-Mode ::= ENUMERATED {
   normal,
   silent,
UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
UL-ScramblingCode ::= SEQUENCE
    ul-ScramblingCodeNumber
                                UL-ScramblingCodeNumber,
   ul-ScramblingCodeLength
                                UL-ScramblingCodeLength,
    iE-Extensions
                            ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
UL-ScramblingCodeNumber
                                ::= INTEGER (0..16777215)
UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
    uL-Synchronisation-StepSize
                                        UL-Synchronisation-StepSize,
    uL-Synchronisation-Frequency
                                            UL-Synchronisation-Frequency,
    iE-Extensions
                                    ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }
                                                                                                                       OPTIONAL,
    . . .
UL-Synchronisation-Parameters-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Synchronisation-StepSize ::= INTEGER (1..8)
UL-Synchronisation-Frequency ::= INTEGER (1..8)
UL-TimeslotISCP
                       ::= INTEGER (0..127)
-- According to mapping in [14]
Unidirectional-DCH-Indicator
                                ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
```

```
URA-ID
                       ::= INTEGER (0..65535)
URA-Information ::= SEOUENCE {
    uRA-ID
                                        URA-ID,
   multipleURAsIndicator
                                        MultipleURAsIndicator,
   rNCsWithCellsInTheAccessedURA-List RNCsWithCellsInTheAccessedURA-List OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item
RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID
   iE-Extensions
                                    ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ID
                       ::= INTEGER (0..255)
USCH-Information ::= SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem
USCH-InformationItem ::= SEQUENCE {
    uSCH-ID
                                        USCH-ID,
   ul-CCTrCH-ID
                                        CCTrCH-ID,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    rb-Info
                                        RB-Info,
                                        ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID PRESENCE
                                                                                                                    optional } |
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
```

END

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9.3.5 Common Definitions

```
__ *********************
-- Common definitions
__ **********************
RNSAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-CommonDataTypes (3) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
  *****************
-- Extension constants
__ **********************
maxPrivateIEs
                                    INTEGER ::= 65535
maxProtocolExtensions
                                    INTEGER ::= 65535
maxProtocolIEs
                                    INTEGER ::= 65535
__ *********************
-- Common Data Types
Criticality
            ::= ENUMERATED { reject, ignore, notify }
          ::= ENUMERATED { optional, conditional, mandatory }
Presence
PrivateIE-ID ::= CHOICE {
  local
             INTEGER (0.. maxPrivateIEs),
  global
                 OBJECT IDENTIFIER
```

9.3.6 Constant Definitions

```
__ *********************
-- Constant definitions
__ **********************
RNSAP-Constants ·
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Constants (4) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
   ProcedureCode,
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
-- Elementary Procedures
__ ********************
                                                  ProcedureCode ::= 0
id-commonTransportChannelResourcesInitialisation
id-commonTransportChannelResourcesRelease
                                                  ProcedureCode ::= 1
id-compressedModeCommand
                                                  ProcedureCode ::= 2
id-downlinkPowerControl
                                                  ProcedureCode ::= 3
```

INTEGER ::= 256

maxNoTFCIGroups

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```
maxNrOfTFCs
                                        INTEGER ::= 1024
maxNrOfTFs
                                        INTEGER ::= 32
maxNrOfCCTrCHs
                                        INTEGER ::= 16
maxNrOfCCTrCHsLCR
                                        INTEGER ::= 16
maxNrOfDCHs
                                        INTEGER ::= 128
maxNrOfDL-Codes
                                        INTEGER ::= 8
maxNrOfDPCHs
                                        INTEGER ::= 240
maxNrOfDPCHsLCR
                                        INTEGER ::= 240
maxNrOfErrors
                                        INTEGER ::= 256
maxNrOfMACcshSDU-Length
                                        INTEGER ::= 16
                                        INTEGER ::= 15
maxNrOfPoints
maxNrOfRLs
                                        INTEGER ::= 16
maxNrOfRLSets
                                        INTEGER ::= maxNrOfRLs
maxNrOfRLSets-1
                                        INTEGER ::= 15 -- maxNrOfRLSets - 1
maxNrOfRLs-1
                                        INTEGER ::= 15 -- maxNrOfRLs - 1
                                        INTEGER ::= 14 -- maxNrOfRLs - 2
maxNrOfRLs-2
                                        INTEGER ::= 15
maxNrOfULTs
maxNrOfULTsLCR
                                        INTEGER ::= 6
maxNrOfDLTs
                                        INTEGER ::= 15
maxNrOfDLTsLCR
                                        INTEGER ::= 6
maxRNCinURA-1
                                        INTEGER ::= 15
maxTTI-Count
                                        INTEGER ::= 4
maxCTFC
                                        INTEGER ::= 16777215
maxNrOfNeighbouringRNCs
                                        INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC
                                        INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC
                                        INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC
                                        INTEGER ::= 256
                                        INTEGER ::= 8
maxNrOfFACHs
maxNrOfLCRTDDNeighboursPerRNC
                                        INTEGER ::= 256
                                        INTEGER ::= 10
maxFACHCountPlus1
maxIBSEG
                                        INTEGER ::= 16
maxNrOfSCCPCHs
                                        INTEGER ::= 8
maxTFCI1Combs
                                        INTEGER ::= 512
maxTFCI2Combs
                                        INTEGER ::= 1024
maxTFCI2Combs-1
                                        INTEGER ::= 1023
maxTGPS
                                        INTEGER ::= 6
maxNrOfTS
                                        INTEGER ::= 15
maxNrOfLevels
                                        INTEGER ::= 256
maxNoOfDSCHs-1
                                        INTEGER ::= 9
maxNrOfTsLCR
                                        INTEGER ::= 6
maxNoSat
                                        INTEGER ::= 16
maxNoGPSTypes
                                        INTEGER ::= 8
maxNrOfMeasNCell
                                        INTEGER ::= 96
maxNrOfMeasNCell-1
                                                        -- maxNrOfMeasNCell - 1
                                        INTEGER ::= 95
                                        INTEGER ::= 250
maxResetContext
maxResetContextGroup
                                        INTEGER ::= 32
maxNrOfHAROProc
                                        INTEGER ::= 8
maxNrOfHSSCCHCodes
                                        INTEGER ::= 4
maxNrOfHSSICHs
                                        INTEGER ::= 4
maxNrOfMACdFlows
                                        INTEGER ::= 8
maxNrOfMACdFlows-1
                                        INTEGER ::= 7
                                                        -- maxNrOfMACdFlows - 1
```

```
INTEGER ::= 8
maxNrOfPDUIndexes
maxNrOfPDIIIndexes-1
                                       INTEGER ::= 7
                                                      -- maxNrOfPDUIndexes - 1
maxNrOfPrioOueues
                                       INTEGER ::= 8
maxNrOfPrioOueues-1
                                       INTEGER ::= 7 -- maxNrOfPrioOueues - 1
maxNrOfSNAs
                                       INTEGER ::= 65535
****************
-- IEs
__ *********************
                                                                          ProtocolIE-ID ::= 4
id-AllowedOueuingTime
id-Allowed-Rate-Information
                                                                          ProtocolIE-ID ::= 42
id-AntennaColocationIndicator
                                                                          ProtocolIE-ID ::= 309
id-BindingID
                                                                          ProtocolTE-TD ::= 5
id-C-ID
                                                                          ProtocolIE-ID ::= 6
id-C-RNTI
                                                                          ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value
                                                                          ProtocolIE-ID ::= 303
id-CFN
                                                                          ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier
                                                                          ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier
                                                                          ProtocolIE-ID ::= 10
id-Cause
                                                                          ProtocolIE-ID ::= 11
id-CoverageIndicator
                                                                          ProtocolIE-ID ::= 310
                                                                          ProtocolIE-ID ::= 20
id-CriticalityDiagnostics
id-ContextInfoItem-Reset
                                                                          ProtocolIE-ID ::= 211
id-ContextGroupInfoItem-Reset
                                                                          ProtocolIE-ID ::= 515
id-D-RNTI
                                                                          ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication
                                                                          ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD
                                                                          ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD
                                                                          ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD
                                                                          ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD
                                                                          ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD
                                                                          ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRgstTDD
                                                                          ProtocolIE-ID ::= 33
id-DCH-FDD-Information
                                                                          ProtocolIE-ID ::= 34
id-DCH-TDD-Information
                                                                          ProtocolIE-ID ::= 35
id-FDD-DCHs-to-Modify
                                                                          ProtocolIE-ID ::= 39
id-TDD-DCHs-to-Modify
                                                                          ProtocolIE-ID ::= 40
id-DCH-InformationResponse
                                                                          ProtocolIE-ID ::= 43
id-DCH-Rate-InformationItem-RL-CongestInd
                                                                          ProtocolIE-ID ::= 38
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD
                                                                          ProtocolIE-ID ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD
                                                                          ProtocolIE-ID ::= 45
\verb|id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD|\\
                                                                          ProtocolIE-ID ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD
                                                                          ProtocolIE-ID ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRgstTDD
                                                                          ProtocolIE-ID ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD
                                                                          ProtocolIE-ID ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD
                                                                          ProtocolIE-ID ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                                          ProtocolIE-ID ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                                          ProtocolIE-ID ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                          ProtocolIE-ID ::= 53
```

| id EDD DI GadaTufaumahian | D |
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| id-FDD-DL-CodeInformation | ProtocolIE-ID ::= 54 ProtocolIE-ID ::= 59 |
| id-DL-DPCH-Information-RL-ReconfPrepFDD id-DL-DPCH-Information-RL-SetupRgstFDD | ProtocoliE-ID ::= 59 ProtocolIE-ID ::= 60 |
| id-DL-DPCH-Information-RL-ReconfRgstFDD | ProtocoliE-ID ::= 60 |
| id-DL-DPCH-InformationItem-PhyChReconfRqstTDD | ProtocoliE-ID ::= 61 |
| id-DL-DPCH-InformationItem-PhychrecontragstIDD | ProtocoliE-ID ::= 62 ProtocoliE-ID ::= 63 |
| id-DL-DPCH-InformationItem-RL-SetupRspTDD | ProtocoliE-ID ::= 63 |
| id-DL-DPCH-TimingAdjustment | ProtocoliE-ID ::= 278 |
| id-DLReferencePower | ProtocoliE-ID ::= 67 |
| id-DLReferencePowerList-DL-PC-Rgst | ProtocoliE-ID ::= 68 |
| id-DL-ReferencePowerInformation-DL-PC-Rqst | ProtocolIE-ID ::= 69 |
| id-DDC-Mode | ProtocoliE-ID ::= 12 |
| id-DRXCycleLengthCoefficient | ProtocoliE-ID ::= 70 |
| id-DedicatedMeasurementObjectType-DM-Fail-Ind | ProtocoliE-ID ::= 470 |
| id-DedicatedMeasurementObjectType-DM-Fail | ProtocoliE-ID ::= 470 |
| id-DedicatedMeasurementObjectType-DM-Rprt | ProtocolIE-ID ::= 71 |
| id-DedicatedMeasurementObjectType-DM-Rqst | ProtocolIE-ID ::= 72 |
| id-DedicatedMeasurementObjectType-DM-Rsp | ProtocoliE-ID ::= 73 |
| id-DedicatedMeasurementType | ProtocolIE-ID ::= 74 |
| id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD | ProtocolIE-ID ::= 82 |
| id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD | ProtocolIE-ID ::= 83 |
| id-Guaranteed-Rate-Information | ProtocoliE-ID ::= 41 |
| id-IMSI | ProtocolIE-ID ::= 84 |
| id-HCS-Prio | ProtocolIE-ID ::= 311 |
| id-L3-Information | ProtocolIE-ID ::= 85 |
| id-AdjustmentPeriod | ProtocolIE-ID ::= 90 |
| id-MaxAdjustmentStep | ProtocolIE-ID ::= 91 |
| id-MeasurementFilterCoefficient | ProtocolIE-ID ::= 92 |
| id-MessageStructure | ProtocolIE-ID ::= 57 |
| id-MeasurementID | ProtocolIE-ID ::= 93 |
| id-Neighbouring-GSM-CellInformation | ProtocolIE-ID ::= 13 |
| id-Neighbouring-UMTS-CellInformationItem | ProtocolIE-ID ::= 95 |
| id-NRT-Load-Information-Value | ProtocolIE-ID ::= 305 |
| id-NRT-Load-Information-Value-IncrDecrThres | ProtocolIE-ID ::= 306 |
| id-PagingArea-PagingRgst | ProtocolIE-ID ::= 102 |
| id-FACH-FlowControlInformation | ProtocolIE-ID ::= 103 |
| id-PartialReportingIndicator | ProtocolIE-ID ::= 472 |
| id-Permanent-NAS-UE-Identity | ProtocolIE-ID ::= 17 |
| id-PowerAdjustmentType | ProtocolIE-ID ::= 107 |
| id-RANAP-RelocationInformation | ProtocolIE-ID ::= 109 |
| id-RL-Information-PhyChReconfRqstFDD | ProtocolIE-ID ::= 110 |
| id-RL-Information-PhyChReconfRqstTDD | ProtocolIE-ID ::= 111 |
| id-RL-Information-RL-AdditionRqstFDD | ProtocolIE-ID ::= 112 |
| id-RL-Information-RL-AdditionRqstTDD | ProtocolIE-ID ::= 113 |
| id-RL-Information-RL-DeletionRqst | ProtocolIE-ID ::= 114 |
| id-RL-Information-RL-FailureInd | ProtocolIE-ID ::= 115 |
| id-RL-Information-RL-ReconfPrepFDD | ProtocolIE-ID ::= 116 |
| id-RL-Information-RL-RestoreInd | ProtocolIE-ID ::= 117 |
| id-RL-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 118 |
| id-RL-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 119 |
| id-RL-InformationItem-RL-CongestInd | ProtocolIE-ID ::= 55 |
| | |

| id-RL-InformationItem-DM-Rprt | ProtocolIE-ID ::= 120 |
|---|---|
| id-RL-InformationItem-DM-Rgst | ProtocoliE-ID ::= 121 |
| id-RL-InformationItem-DM-Rsp | ProtocoliE-ID ::= 121 ProtocolIE-ID ::= 122 |
| id-RL-InformationItem-RL-PreemptRequiredInd | ProtocoliE-ID ::= 2 |
| id-RL-InformationItem-RL-SetupRqstFDD | ProtocoliE-ID ::= 2 |
| | |
| id-RL-InformationList-RL-CongestInd | ProtocolIE-ID ::= 56 |
| id-RL-InformationList-RL-AdditionRqstFDD | ProtocolIE-ID ::= 124 |
| id-RL-InformationList-RL-DeletionRqst | ProtocolIE-ID ::= 125 |
| id-RL-InformationList-RL-PreemptRequiredInd | ProtocolIE-ID ::= 1 |
| id-RL-InformationList-RL-ReconfPrepFDD | ProtocolIE-ID ::= 126 |
| id-RL-InformationResponse-RL-AdditionRspTDD | ProtocolIE-ID ::= 127 |
| id-RL-InformationResponse-RL-ReconfReadyTDD | ProtocolIE-ID ::= 128 |
| id-RL-InformationResponse-RL-SetupRspTDD | ProtocolIE-ID ::= 129 |
| id-RL-InformationResponseItem-RL-AdditionRspFDD | ProtocolIE-ID ::= 130 |
| id-RL-InformationResponseItem-RL-ReconfReadyFDD | ProtocolIE-ID ::= 131 |
| id-RL-InformationResponseItem-RL-ReconfRspFDD | ProtocolIE-ID ::= 132 |
| id-RL-InformationResponseItem-RL-SetupRspFDD | ProtocolIE-ID ::= 133 |
| id-RL-InformationResponseList-RL-AdditionRspFDD | ProtocolIE-ID ::= 134 |
| id-RL-InformationResponseList-RL-ReconfReadyFDD | ProtocolIE-ID ::= 135 |
| id-RL-InformationResponseList-RL-ReconfRspFDD | ProtocolIE-ID ::= 136 |
| id-RL-InformationResponse-RL-ReconfRspTDD | ProtocolIE-ID ::= 28 |
| id-RL-InformationResponseList-RL-SetupRspFDD | ProtocolIE-ID ::= 137 |
| id-RL-ReconfigurationFailure-RL-ReconfFail | ProtocolIE-ID ::= 141 |
| id-RL-Set-InformationItem-DM-Rprt | ProtocolIE-ID ::= 143 |
| id-RL-Set-InformationItem-DM-Rqst | ProtocolIE-ID ::= 144 |
| id-RL-Set-InformationItem-DM-Rsp | ProtocolIE-ID ::= 145 |
| id-RL-Set-Information-RL-FailureInd | ProtocolIE-ID ::= 146 |
| id-RL-Set-Information-RL-RestoreInd | ProtocolIE-ID ::= 147 |
| id-RL-Set-Successful-InformationItem-DM-Fail | ProtocolIE-ID ::= 473 |
| id-RL-Set-Unsuccessful-InformationItem-DM-Fail | ProtocolIE-ID ::= 474 |
| id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind | ProtocolIE-ID ::= 475 |
| id-RL-Successful-InformationItem-DM-Fail | ProtocolIE-ID ::= 476 |
| id-RL-Unsuccessful-InformationItem-DM-Fail | ProtocolIE-ID ::= 477 |
| id-RL-Unsuccessful-InformationItem-DM-Fail-Ind | ProtocolIE-ID ::= 478 |
| id-ReportCharacteristics | ProtocolIE-ID ::= 152 |
| id-Reporting-Object-RL-FailureInd | ProtocolIE-ID ::= 153 |
| id-Reporting-Object-RL-RestoreInd | ProtocolIE-ID ::= 154 |
| id-RT-Load-Value | ProtocolIE-ID ::= 307 |
| id-RT-Load-Value-IncrDecrThres | ProtocolIE-ID ::= 308 |
| id-S-RNTI | ProtocoliE-ID ::= 155 |
| id-ResetIndicator | ProtocoliE-ID ::= 155 ProtocoliE-ID ::= 244 |
| id-RNC-ID | ProtocoliE-ID ::= 244 ProtocoliE-ID ::= 245 |
| | |
| id-SAI | ProtocolIE-ID ::= 156 |
| id-SRNC-ID | ProtocolIE-ID ::= 157 |
| id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD | ProtocolIE-ID ::= 159 |
| id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD | ProtocolIE-ID ::= 160 |
| id-TransportBearerID | ProtocolIE-ID ::= 163 |
| id-TransportBearerRequestIndicator | ProtocolIE-ID ::= 164 |
| id-TransportLayerAddress | ProtocolIE-ID ::= 165 |
| id-TypeOfError | ProtocolIE-ID ::= 140 |
| id-UC-ID | ProtocolIE-ID ::= 166 |
| | |

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|---|-----------------------|
| id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD | ProtocolIE-ID ::= 167 |
| id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 169 |
| id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD | ProtocolIE-ID ::= 171 |
| id-UL-CCTrCH-InformationList-RL-SetupRqstTDD | ProtocolIE-ID ::= 172 |
| id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD | ProtocolIE-ID ::= 173 |
| id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 174 |
| id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 175 |
| id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 176 |
| id-UL-DPCH-Information-RL-ReconfPrepFDD | ProtocolIE-ID ::= 177 |
| id-UL-DPCH-Information-RL-ReconfRqstFDD | ProtocolIE-ID ::= 178 |
| id-UL-DPCH-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 179 |
| id-UL-DPCH-InformationItem-PhyChReconfRqstTDD | ProtocolIE-ID ::= 180 |
| id-UL-DPCH-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 181 |
| id-UL-DPCH-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 182 |
| id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 183 |
| id-UL-SIRTarget | ProtocolIE-ID ::= 184 |
| id-URA-Information | ProtocolIE-ID ::= 185 |
| id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD | ProtocolIE-ID ::= 188 |
| id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD | ProtocolIE-ID ::= 189 |
| id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD | ProtocolIE-ID ::= 190 |
| id-Active-Pattern-Sequence-Information | ProtocolIE-ID ::= 193 |
| id-AdjustmentRatio | ProtocolIE-ID ::= 194 |
| id-CauseLevel-RL-AdditionFailureFDD | ProtocolIE-ID ::= 197 |
| id-CauseLevel-RL-AdditionFailureTDD | ProtocolIE-ID ::= 198 |
| id-CauseLevel-RL-ReconfFailure | ProtocolIE-ID ::= 199 |
| id-CauseLevel-RL-SetupFailureFDD | ProtocolIE-ID ::= 200 |
| id-CauseLevel-RL-SetupFailureTDD | ProtocolIE-ID ::= 201 |
| id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD | ProtocolIE-ID ::= 205 |
| id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD | ProtocolIE-ID ::= 206 |
| id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD | ProtocolIE-ID ::= 207 |
| id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 208 |
| id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 209 |
| id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 210 |
| id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 212 |
| id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 213 |
| id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 214 |
| id-DSCHs-to-Add-TDD | ProtocolIE-ID ::= 215 |
| id-DSCHs-to-Add-FDD | ProtocolIE-ID ::= 216 |
| id-DSCH-DeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 217 |
| id-DSCH-Delete-RL-ReconfPrepFDD | ProtocolIE-ID ::= 218 |
| id-DSCH-FDD-Information | ProtocolIE-ID ::= 219 |
| id-DSCH-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 220 |
| id-DSCH-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 221 |
| id-DSCH-TDD-Information | ProtocolIE-ID ::= 222 |
| id-DSCH-FDD-InformationResponse | ProtocolIE-ID ::= 223 |
| id-DSCH-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 226 |
| id-DSCH-ModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 227 |
| id-DSCH-Modify-RL-ReconfPrepFDD | ProtocolIE-ID ::= 228 |
| id-DSCH-Specific-FDD-Additional-List | ProtocolIE-ID ::= 324 |
| id-DSCHsToBeAddedOrModified-FDD | ProtocolIE-ID ::= 229 |
| $\verb id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD \\$ | ProtocolIE-ID ::= 230 |
| | |

| id-EnhancedDSCHPC | ProtocolIE-ID ::= 29 |
|--|---|
| | |
| <pre>id-EnhancedDSCHPCIndicator id-GA-Cell</pre> | ProtocolIE-ID ::= 225 ProtocolIE-ID ::= 232 |
| id-GA-CellAdditionalShapes | ProtocoliE-ID ::= 232 ProtocoliE-ID ::= 3 |
| id-SSDT-CellIDforEDSCHPC | ProtocoliE-ID ::= 3 |
| id-Transmission-Gap-Pattern-Sequence-Information | ProtocoliE-ID ::= 246 ProtocoliE-ID ::= 255 |
| id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD | ProtocoliE-ID ::= 256 |
| <u>-</u> | ProtocoliE-ID ::= 256 ProtocoliE-ID ::= 257 |
| <pre>id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD id-UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD</pre> | ProtocoliE-ID ::= 257 |
| id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD | ProtocoliE-ID ::= 259 |
| - | |
| id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 260 |
| id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 261 |
| id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD | ProtocolIE-ID ::= 262 |
| id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 263 |
| id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 264 |
| id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 265 |
| id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD | ProtocolIE-ID ::= 266 |
| id-USCHs-to-Add | ProtocolIE-ID ::= 267 |
| id-USCH-DeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 268 |
| id-USCH-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 269 |
| id-USCH-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 270 |
| id-USCH-Information | ProtocolIE-ID ::= 271 |
| id-USCH-ModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 272 |
| id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD | ProtocolIE-ID ::= 273 |
| id-DL-Physical-Channel-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 274 |
| id-UL-Physical-Channel-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 275 |
| id-ClosedLoopModel-SupportIndicator | ProtocolIE-ID ::= 276 |
| id-ClosedLoopMode2-SupportIndicator | ProtocolIE-ID ::= 277 |
| id-STTD-SupportIndicator | ProtocolIE-ID ::= 279 |
| id-CFNReportingIndicator | ProtocolIE-ID ::= 14 |
| id-CNOriginatedPage-PagingRqst | ProtocolIE-ID ::= 23 |
| id-InnerLoopDLPCStatus | ProtocolIE-ID ::= 24 |
| id-PropagationDelay | ProtocolIE-ID ::= 25 |
| id-RxTimingDeviationForTA | ProtocolIE-ID ::= 36 |
| id-timeSlot-ISCP | ProtocolIE-ID ::= 37 |
| id-CCTrCH-InformationItem-RL-FailureInd | ProtocolIE-ID ::= 15 |
| id-CCTrCH-InformationItem-RL-RestoreInd | ProtocolIE-ID ::= 16 |
| id-CommonMeasurementAccuracy | ProtocolIE-ID ::= 280 |
| id-CommonMeasurementObjectType-CM-Rprt | ProtocolIE-ID ::= 281 |
| id-CommonMeasurementObjectType-CM-Rqst | ProtocolIE-ID ::= 282 |
| id-CommonMeasurementObjectType-CM-Rsp | ProtocolIE-ID ::= 283 |
| id-CommonMeasurementType | ProtocolIE-ID ::= 284 |
| id-CongestionCause | ProtocolIE-ID ::= 18 |
| id-SFN | ProtocolIE-ID ::= 285 |
| id-SFNReportingIndicator | ProtocolIE-ID ::= 286 |
| id-InformationExchangeID | ProtocolIE-ID ::= 287 |
| id-InformationExchangeObjectType-InfEx-Rprt | ProtocolIE-ID ::= 288 |
| id-InformationExchangeObjectType-InfEx-Rqst | ProtocolIE-ID ::= 289 |
| id-InformationExchangeObjectType-InfEx-Rsp | ProtocolIE-ID ::= 290 |
| id-InformationReportCharacteristics | ProtocolIE-ID ::= 291 |
| id-InformationType | ProtocolIE-ID ::= 292 |
| | |

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| id-neighbouring-LCR-TDD-CellInformation | ProtocolIE-ID ::= 58 |
| id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 65 |
| id-RL-LCR-InformationResponse-RL-SetupRspTDD | ProtocolIE-ID ::= 66 |
| id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 75 |
| id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 76 |
| id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 77 |
| id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 78 |
| id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 79 |
| id-USCH-LCR-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 80 |
| id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD | ProtocolIE-ID ::= 81 |
| id-RL-LCR-InformationResponse-RL-AdditionRspTDD | ProtocolIE-ID ::= 86 |
| id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 87 |
| id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 88 |
| id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 89 |
| id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 94 |
| id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD | ProtocolIE-ID ::= 96 |
| id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD | ProtocolIE-ID ::= 97 |
| id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 98 |
| id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD | ProtocolIE-ID ::= 100 |
| id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 101 |
| id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD | ProtocolIE-ID ::= 104 |
| id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD | ProtocolIE-ID ::= 105 |
| id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD | ProtocolIE-ID ::= 106 |
| id-timeSlot-ISCP-LCR-List-DL-PC-Rgst-TDD | ProtocolIE-ID ::= 138 |
| id-TSTD-Support-Indicator-RL-SetupRgstTDD | ProtocolIE-ID ::= 139 |
| id-RestrictionStateIndicator | ProtocolIE-ID ::= 142 |
| id-Load-Value | ProtocolIE-ID ::= 233 |
| id-Load-Value-IncrDecrThres | ProtocolIE-ID ::= 234 |
| id-OnModification | ProtocolIE-ID ::= 235 |
| id-Received-Total-Wideband-Power-Value | ProtocolIE-ID ::= 236 |
| id-Received-Total-Wideband-Power-Value-IncrDecrThres | ProtocolIE-ID ::= 237 |
| id-SFNSFNMeasurementThresholdInformation | ProtocolIE-ID ::= 238 |
| id-Transmitted-Carrier-Power-Value | ProtocolIE-ID ::= 239 |
| id-Transmitted-Carrier-Power-Value-IncrDecrThres | ProtocolIE-ID ::= 240 |
| id-TUTRANGPSMeasurementThresholdInformation | ProtocolIE-ID ::= 241 |
| id-UL-Timeslot-ISCP-Value | ProtocolIE-ID ::= 242 |
| id-UL-Timeslot-ISCP-Value-IncrDecrThres | ProtocolIE-ID ::= 243 |
| id-Rx-Timing-Deviation-Value-LCR | ProtocolIE-ID ::= 293 |
| id-DPC-Mode-Change-SupportIndicator | ProtocolIE-ID ::= 19 |
| id-SplitType | ProtocolIE-ID ::= 247 |
| id-LengthOfTFCI2 | ProtocolIE-ID ::= 295 |
| id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD | ProtocolIE-ID ::= 202 |
| id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD | ProtocolIE-ID ::= 203 |
| id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD | ProtocolIE-ID ::= 204 |
| id-DSCH-RNTI | ProtocolIE-ID ::= 249 |
| id-DL-PowerBalancing-Information | ProtocolIE-ID ::= 296 |
| id-DL-PowerBalancing-ActivationIndicator | ProtocolIE-ID ::= 297 |
| id-DL-PowerBalancing-UpdatedIndicator | ProtocolIE-ID ::= 298 |
| id-DL-ReferencePowerInformation | ProtocolIE-ID ::= 299 |
| id-Enhanced-PrimaryCPICH-EcNo | ProtocolIE-ID ::= 224 |
| id-IPDL-TDD-ParametersLCR | ProtocolIE-ID ::= 252 |
| | |

| id-CellCapabilityContainer-FDD | ProtocolIE-ID ::= 300 |
|--|-----------------------|
| id-CellCapabilityContainer-TDD | ProtocolIE-ID ::= 301 |
| id-CellCapabilityContainer-TDD-LCR | ProtocolIE-ID ::= 302 |
| id-RL-Specific-DCH-Info | ProtocolIE-ID ::= 317 |
| id-RL-ReconfigurationRequestFDD-RL-InformationList | ProtocolIE-ID ::= 318 |
| id-RL-ReconfigurationRequestFDD-RL-Information-IEs | ProtocolIE-ID ::= 319 |
| id-RL-ReconfigurationReadyTDD-RL-Information | ProtocoliE-ID ::= 320 |
| id-RL-ReconfigurationRequestTDD-RL-Information | ProtocolIE-ID ::= 321 |
| id-CommonTransportChannelResourcesInitialisationNotRequired | ProtocolIE-ID ::= 250 |
| id-DelayedActivation | ProtocolIE-ID ::= 312 |
| id-DelayedActivationList-RL-ActivationCmdFDD | ProtocolIE-ID ::= 313 |
| id-DelayedActivationInformation-RL-ActivationCmdFDD | ProtocolIE-ID ::= 314 |
| id-DelayedActivationList-RL-ActivationCmdTDD | ProtocolIE-ID ::= 315 |
| id-DelayedActivationInformation-RL-ActivationCmdTDD | ProtocolIE-ID ::= 316 |
| id-neighbouringTDDCellMeasurementInformationLCR | ProtocolIE-ID ::= 251 |
| id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 150 |
| id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 151 |
| id-PrimCCPCH-RSCP-DL-PC-RgstTDD | ProtocolIE-ID ::= 451 |
| id-HSDSCH-FDD-Information | ProtocolIE-ID ::= 452 |
| id-HSDSCH-FDD-Information-Response | ProtocolIE-ID ::= 453 |
| id-HSDSCH-FDD-Information-to-Add | ProtocolIE-ID ::= 454 |
| id-HSDSCH-FDD-Information-to-Delete | ProtocolIE-ID ::= 455 |
| id-HSDSCH-FDD-Update-Information | ProtocolIE-ID ::= 466 |
| id-HSDSCH-Information-to-Modify | ProtocolIE-ID ::= 456 |
| id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd | ProtocolIE-ID ::= 516 |
| id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd | ProtocolIE-ID ::= 517 |
| id-HSDSCH-RNTI | ProtocolIE-ID ::= 457 |
| id-HSDSCH-TDD-Information | ProtocolIE-ID ::= 458 |
| id-HSDSCH-TDD-Information-Response | ProtocolIE-ID ::= 459 |
| id-HSDSCH-TDD-Information-Response-LCR | ProtocolIE-ID ::= 460 |
| id-HSDSCH-TDD-Information-to-Add | ProtocolIE-ID ::= 461 |
| id-HSDSCH-TDD-Information-to-Delete | ProtocolIE-ID ::= 462 |
| id-HSDSCH-TDD-Update-Information | ProtocolIE-ID ::= 467 |
| id-HSPDSCH-RL-ID | ProtocolIE-ID ::= 463 |
| id-Angle-Of-Arrival-Value-LCR | ProtocolIE-ID ::= 148 |
| id-TrafficClass | ProtocolIE-ID ::= 158 |
| id-TFCI-PC-SupportIndicator | ProtocolIE-ID ::= 248 |
| id-Qth-Parameter | ProtocolIE-ID ::= 253 |
| id-PDSCH-RL-ID | ProtocolIE-ID ::= 323 |
| id-TimeSlot-RL-SetupRspTDD | ProtocolIE-ID ::= 325 |
| id-GERAN-Cell-Capability | ProtocolIE-ID ::= 468 |
| id-GERAN-Classmark | ProtocolIE-ID ::= 469 |
| id-DSCH-InitialWindowSize | ProtocolIE-ID ::= 480 |
| id-UL-Synchronisation-Parameters-LCR | ProtocolIE-ID ::= 464 |
| id-SNA-Information | ProtocolIE-ID ::= 479 |
| id-MAChs-ResetIndicator | ProtocolIE-ID ::= 465 |
| id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD | ProtocolIE-ID ::= 481 |
| id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD | ProtocolIE-ID ::= 482 |
| id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD | ProtocolIE-ID ::= 483 |
| id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD | ProtocolIE-ID ::= 484 |
| id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD | ProtocolIE-ID ::= 485 |
| | |

```
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                                                             ProtocolIE-ID ::= 486
id-DL-CCTrCH-InformationItem-RL-AdditionRgstTDD
                                                                             ProtocolIE-ID ::= 487
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 488
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 489
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 490
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 491
id-UL-TimingAdvanceCtrl-LCR
                                                                             ProtocolIE-ID ::= 492
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
                                                                             ProtocolIE-ID ::= 493
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRgstTDD
                                                                             ProtocolIE-ID ::= 494
id-HS-SICH-Reception-Quality
                                                                             ProtocolIE-ID ::= 495
id-HS-SICH-Reception-Quality-Measurement-Value
                                                                             ProtocolIE-ID ::= 496
id-HSSICH-Info-DM-Rprt
                                                                             ProtocolIE-ID ::= 497
id-HSSICH-Info-DM-Rast
                                                                             ProtocolIE-ID ::= 498
id-HSSICH-Info-DM-Rsp
                                                                             ProtocolIE-ID ::= 499
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD
                                                                             ProtocolIE-ID ::= 500
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD
                                                                             ProtocolIE-ID ::= 501
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 502
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 503
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 504
id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 505
id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 506
id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 507
id-DL-CCTrCH-InformationList-RL-ReconfRspTDD
                                                                             ProtocolIE-ID ::= 508
id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD
                                                                             ProtocolIE-ID ::= 509
id-Maximum-DL-Power-TimeslotLCR-InformationItem
                                                                             ProtocolIE-ID ::= 510
id-Minimum-DL-Power-TimeslotLCR-InformationItem
                                                                             ProtocolIE-ID ::= 511
id-TDD-Support-8PSK
                                                                             ProtocolIE-ID ::= 512
id-TDD-maxNrDLPhysicalchannels
                                                                             ProtocolIE-ID ::= 513
id-ExtendedGSMCellIndividualOffset
                                                                             ProtocolIE-ID ::= 514
id-RL-ParameterUpdateIndicationFDD-RL-InformationList
                                                                             ProtocolIE-ID ::= 518
id-Primary-CPICH-Usage-For-Channel-Estimation
                                                                             ProtocolIE-ID ::= 519
id-Secondary-CPICH-Information-Change
                                                                             ProtocolIE-ID ::= 521
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                             ProtocolIE-ID ::= 522
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH
                                                                             ProtocolIE-ID ::= 523
id-RL-ParameterUpdateIndicationFDD-RL-Information-Item
                                                                             ProtocolIE-ID ::= 524
id-Phase-Reference-Update-Indicator
                                                                             ProtocolIE-ID ::= 525
id-Unidirectional-DCH-Indicator
                                                                             ProtocolIE-ID ::= 526
```

END

9.3.7 Container Definitions

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```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Containers (5) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
   -- IE parameter types from other modules.
__ *********************
IMPORTS
  maxPrivateIEs,
  maxProtocolExtensions,
  maxProtocolIEs,
  Criticality,
  Presence,
  PrivateIE-ID,
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
__ ********************
-- Class Definition for Protocol IEs
__ **********************
RNSAP-PROTOCOL-IES ::= CLASS {
               ProtocolIE-ID
                                       UNIQUE,
  &criticality
                    Criticality,
  &Value,
   &presence
                  Presence
WITH SYNTAX {
  ID
               &id
  CRITICALITY
                  &criticality
  TYPE
                  &Value
   PRESENCE
                  &presence
__ ********************
-- Class Definition for Protocol IEs
__ ********************
RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
               ProtocolIE-ID
                                       UNIQUE,
   &firstCriticality
                    Criticality,
```

```
&FirstValue,
   &secondCriticality
                         Criticality,
   &SecondValue,
   &presence
                      Presence
WITH SYNTAX {
   ID
                  &id
   FIRST CRITICALITY
                         &firstCriticality
   FIRST TYPE
                      &FirstValue
                         &secondCriticality
   SECOND CRITICALITY
   SECOND TYPE
                      &SecondValue
   PRESENCE
                      &presence
  *****************
-- Class Definition for Protocol Extensions
__ ***********************************
RNSAP-PROTOCOL-EXTENSION ::= CLASS {
                  ProtocolIE-ID
   &id
                                            UNIQUE,
   &criticality
                         Criticality,
   &Extension,
   &presence
                  Presence
WITH SYNTAX {
   ID
                  &id
   CRITICALITY
                      &criticality
   EXTENSION
                      &Extension
   PRESENCE
                      &presence
-- Class Definition for Private IEs
RNSAP-PRIVATE-IES ::= CLASS {
   &id
                  PrivateIE-ID,
   &criticality
                         Criticality,
   &Value,
   &presence
                  Presence
WITH SYNTAX {
   ID
                  &id
                      &criticality
   CRITICALITY
   TYPE
                  &Value
   PRESENCE
                      &presence
```

```
552
```

```
-- Container for Protocol IEs
__ **********************
ProtocolIE-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Single-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Field {RNSAP-PROTOCOL-IES : IESSetParam} ::= SEQUENCE {
                                              ({IEsSetParam}),
             RNSAP-PROTOCOL-IES.&id
              RNSAP-PROTOCOL-IES.&criticality
                                                     ({IEsSetParam}{@id}),
   criticality
                                                     ({IEsSetParam}{@id})
   value
                   RNSAP-PROTOCOL-IES.&Value
     *****
-- Container for Protocol IE Pairs
  ************************
ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-FieldPair {{IEsSetParam}}
ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
              RNSAP-PROTOCOL-IES-PAIR.&id
                                            ({IEsSetParam}),
   firstCriticality
                       RNSAP-PROTOCOL-IES-PAIR.&firstCriticality ({IEsSetParam}{@id}),
   firstValue
                   RNSAP-PROTOCOL-IES-PAIR.&FirstValue
                                                        ({IEsSetParam}{@id}),
                       RNSAP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),
   secondCriticality
   secondValue
                                                           ({IEsSetParam}{@id})
                   RNSAP-PROTOCOL-IES-PAIR.&SecondValue
     -- Container Lists for Protocol IE Containers
    *****************
ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-Container {{IEsSetParam}}
ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-ContainerPair {{IEsSetParam}}
```

END

```
-- Container for Protocol Extensions
__ *********************
ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
   SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
   ProtocolExtensionField {{ExtensionSetParam}}
ProtocolExtensionField {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
                RNSAP-PROTOCOL-EXTENSION.&id
                                                   ({ExtensionSetParam}),
   criticality
                    RNSAP-PROTOCOL-EXTENSION.&criticality
                                                          ({ExtensionSetParam}{@id}),
   extensionValue
                                                          ({ExtensionSetParam}{@id})
                  RNSAP-PROTOCOL-EXTENSION. & Extension
    -- Container for Private IEs
__ *********************
PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (1..maxPrivateIEs)) OF
   PrivateIE-Field {{IEsSetParam}}
PrivateIE-Field {RNSAP-PRIVATE-IES : IESSetParam} ::= SEQUENCE {
                RNSAP-PRIVATE-IES.&id
                                            ({IEsSetParam}),
   criticality
                    RNSAP-PRIVATE-IES.&criticality
                                                 ({IEsSetParam}{@id}),
                                           ({IEsSetParam}{@id})
   value
                RNSAP-PRIVATE-IES.&Value
```

9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

The following encoding rules apply in addition to what has been specified in X.691 [20]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [20], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term "leading bit" is to be interpreted as equal to the term "first bit" defined in [18].

9.5 Timers

T_{Preempt}

 Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

10 Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

- 1. Transfer Syntax Error;
- 2. Abstract Syntax Error;
- 3. Logical Error.

Protocol errors can occur in the following functions within a receiving node.

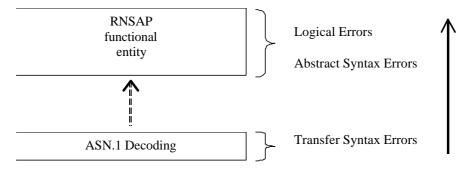


Figure 34: Protocol Errors in RNSAP

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error;
- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error;
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message);
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional RNSAP entity:

- 1. Receives IEs or IE groups that cannot be understood (unknown IE id);
- 2 Receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
- 3 Does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
- 4 Receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
- 5 receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the RNSAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

1. Reject IE;

- 2. Ignore IE and Notify Sender;
- 3. Ignore IE.

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

- 1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by a receiving entity (some may still remain unsupported).
- 2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, RNSAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field f the concerned object of class RNSAP-PROTOCOL-IES, RNSAP-PROTOCOL-IES-PAIR, RNSAP-PROTOCOL-EXTENSION or RNSAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

- 1. Optional;
- 2. Conditional;
- 3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

10.3.4 Not Comprehended IE/IE Group

10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

 If a message is received with a Procedure ID marked with "Ignore IE and Notify Sender" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

Reject IE:

- If a message initiating a procedure is received containing one or more IEs/IE groups marked with "Reject IE" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*, that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.
- If a response message is received containing one or more IEs/IE groups marked with "Ignore IE and Notify Sender" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

Ignore IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "Ignore IE and Notify Sender", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

Ignore IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value. Typical cause values are:

Protocol Causes:

- 1. Semantic Error;
- 2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the

Transaction ID IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

Annex A (normative):

Allocation and Pre-emption of Radio Links in the DRNS

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note:

- The Allocation/Retention Priority IE for a transport channel may have been received in
- a) the procedure that establishes the first Radio Link for the UE in the DRNS or
- b) a procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:
 - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link
 - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.
 - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
 - If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest receive d *Allocation/Retention Priority* IE for each transport channel shall be used.

Note:

The Allocation/Retention Priority IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the UE in the DRNS,
- b) a previous procedure adding or modifying the transport channel, or
- c) the current procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:
 - The transport channels to be added or modified that have the *Priority Level IE* in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.
 - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.
 - If all non-excluded transport channels that are to be added or modified in the Radio Link have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
 - If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note:

The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:
 - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level IE* in the *Allocation/Retention Priority IE*, for all transport channels that uses the Radio Link.
 - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".

 If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The DRNS shall establish or modify the resources for a Radio Link according to:

The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio to be established or modified. The Allocation Information is derived according to clause A.1.

- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the DRNS.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger preemption" and the resource situation so requires, the DRNS may trigger the pre-emption process in clause A.4 to free resources for this allocation request.
- -. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the DRNS shall initiate the Radio Link Pre-emption procedure for all the UE Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the DRNS shall reject the procedure that triggered the pre-emption process and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

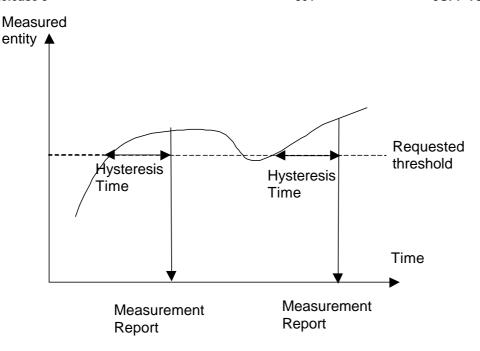


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

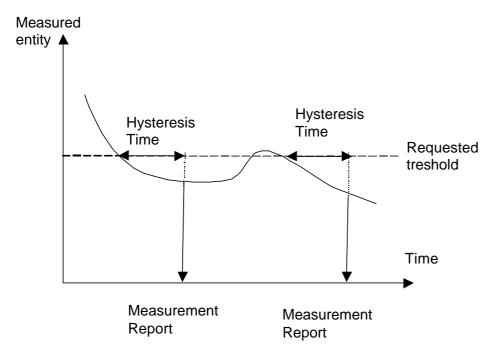


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

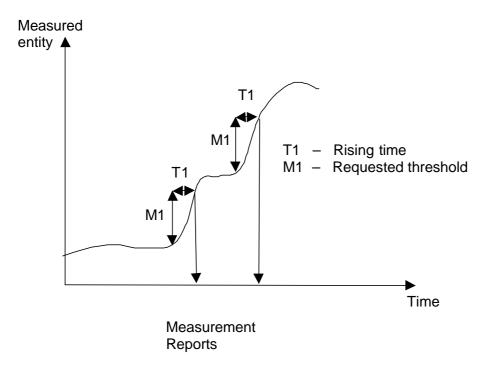


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

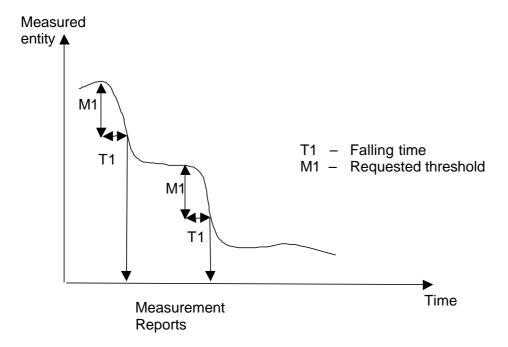


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

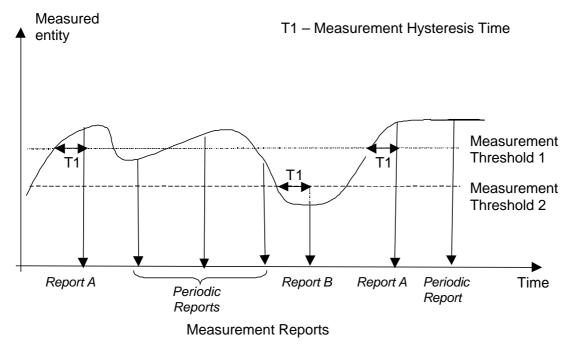
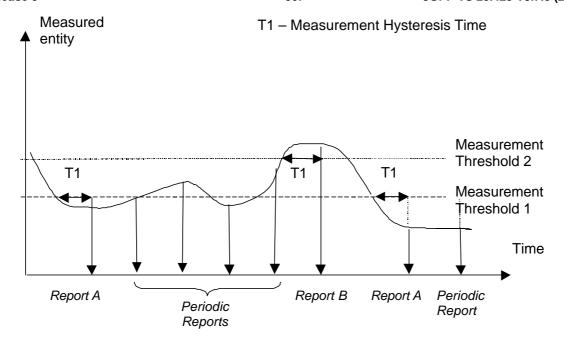


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



Measurement Reports

Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

| IE/Group Name | Presence | Range | IE Type and Referenc e | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-----------------|---------------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | | | YES | reject |
| Transaction ID | M | | | | _ | |
| Α | M | | | | YES | reject |
| В | M | | | | YES | reject |
| >E | | 1 <maxe></maxe> | | | EACH | ignore |
| >>F | | 1 <maxf></maxf> | | | - | |
| >>>G | | 03, | | | EACH | ignore |
| >>H | | 1 <maxh></maxh> | | | EACH | ignore |
| >>>G | | 03, | | | EACH | ignore and notify |
| >>G | М | | | | YES | reject |
| >>J | | 1 <maxj></maxj> | | | - | |
| >>>G | | 03, | | | EACH | reject |
| С | M | | | | YES | reject |
| >K | | 1 <maxk></maxk> | | | EACH | ignore and notify |
| >>L | | 1 <maxl></maxl> | | | - | |
| >>>M | 0 | | | | - | |
| D | M | | | | YES | reject |

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

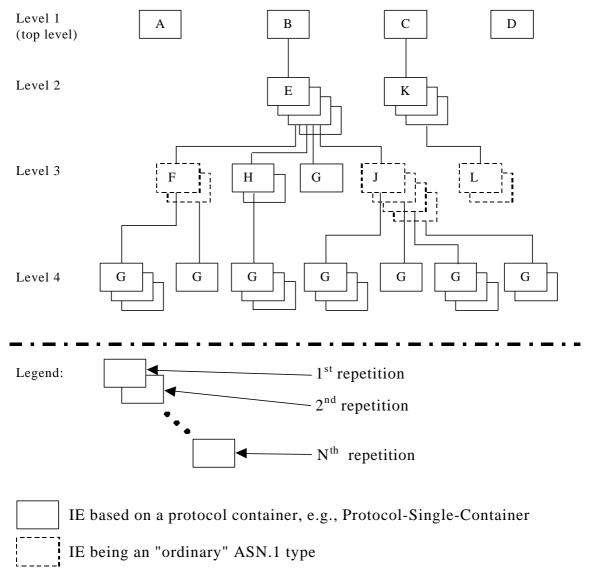
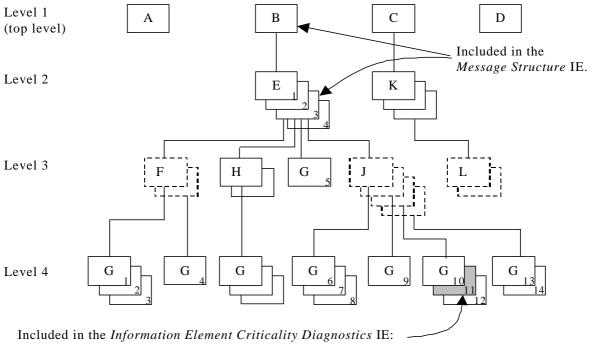


Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1



- a) IE ID IE
- b) Repetition Number IE

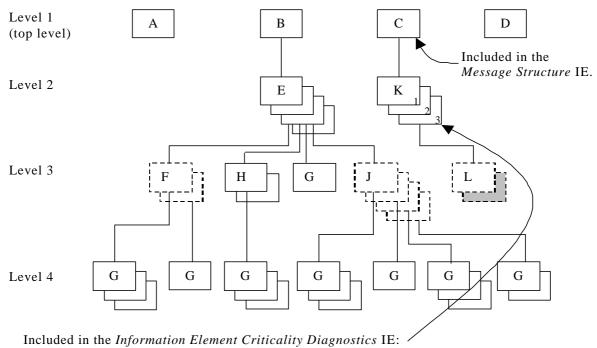
Figure C.2: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|------------------|---------------|--|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition | 11 | Repetition number on the reported level, i.e. level 4. |
| Number | | (Since the IE E (level 2) is the lowest level included in the Message Structure IE this is |
| | | the eleventh occurrence of IE G within the IE E (level 2). |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |
| Number | | |

- Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own
- Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2 Example 2



- a) IE ID IE
- b) Repetition Number IE

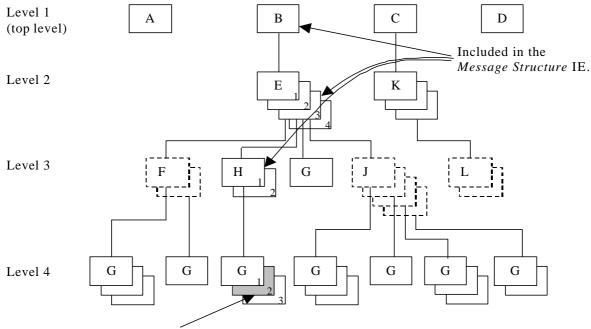
Figure C.3: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|-------------------------------------|---------|---|
| IE Criticality | ignore | Criticality for IE on the reported level, i.e. level 2. |
| | and | |
| | notify | |
| IE ID | id-K | IE ID from the reported level, i.e. level 2. |
| Repetition | 3 | Repetition number on the reported level, i.e. level 2. |
| Number | | |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structure, first repetition | | |
| >IE ID | id-C | IE ID from the lowest level above the reported level, i.e. level 1. |

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

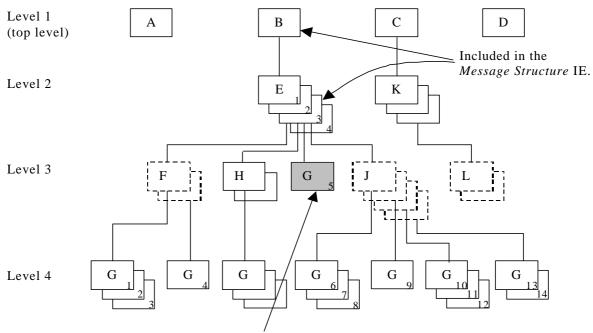
Figure C.4: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|-------------------------------------|-------------------------|---|
| IE Criticality | ignore and notify | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition Number | 2 | Repetition number on the reported level, i.e. level 4. |
| Type of Error | not underst ood | |
| Message Structur | re, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | re, second | repetition |
| >IE ID | id-E | IE ID from level 2. |
| >Repetition Number | 3 | Repetition number from level 2. |
| Message Structure, third repetition | | |
| >IE ID | id-H | IE ID from the lowest level above the reported level, i.e. level 3. |
| >Repetition Number | 1 | Repetition number from the lowest level above the reported level, i.e. level 3. |

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

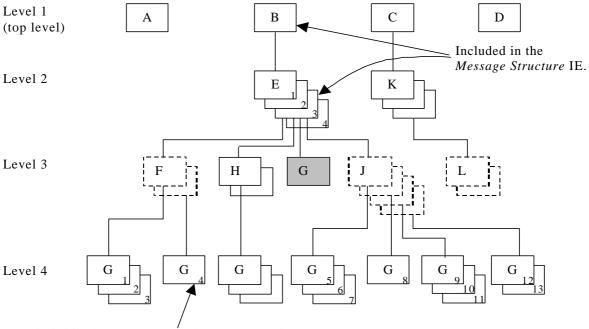
Figure C.5: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|------------------|---------------|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition | 5 | Repetition number on the reported level, i.e. level 3. |
| Number | | (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE this is the fifth occurrence of IE G within the IE E (level 2). |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |
| Number | | |

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

Figure C.6: Example of a received RNSAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|------------------|---------------|--|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition | 4 | Repetition number up to the missing IE on the reported level, i.e. level 3. |
| Number | | (Since the IE E (level 2) is the lowest level included in the Message Structure IE there |
| | | have been four occurrences of IE G within the IE E (level 2) up to the missing |
| | | occurrence. |
| Type of Error | missing | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |
| Number | | |

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
   ProtocolIEs ProtocolIE-Container {{ExampleMessage-IEs}},
ProtocolExtensions ProtocolExtensionContainer {{ExampleMessage-Extensions}}
}
ExampleMessage-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-A CRITICALITY reject TYPE A PRESENCE mandatory} { ID id-B CRITICALITY reject TYPE B PRESENCE mandatory}
    { ID id-C CRITICALITY reject TYPE C PRESENCE mandatory} { ID id-D CRITICALITY reject TYPE D PRESENCE mandatory}
}
B ::= SEQUENCE {
                   E-List,
   iE-Extensions ProtocolExtensionContainer { {B-ExtIEs} } OPTIONAL,
B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
E-IES RNSAP-PROTOCOL-IES ::= {
   E ::= SEQUENCE {
                   F-List,
   £
                   H-List,
                   G-List1,
   q
                   J-List,
    \verb|iE-Extensions| & \verb|ProtocolExtensionContainer| & \verb|\{E-ExtIEs\}| & \verb|OPTIONAL|, \\
}
E-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
F-List ::= SEQUENCE (SIZE (1..maxF)) OF F
F ::= SEQUENCE {
                   G-List2 OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { {F-ExtIEs} } OPTIONAL,
F-ExtIEs
         RNSAP-PROTOCOL-EXTENSION ::= {
G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G2-IEs} }
G2-IEs RNSAP-PROTOCOL-IES ::= {
   H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }
H-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-H CRITICALITY ignore TYPE H PRESENCE mandatory }
H ::= SEQUENCE {
                   G-List3 OPTIONAL,
                                  ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
   iE-Extensions
H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
G-List3 ::= SEQUENCE (SIZE (1...3, ...)) OF ProtocolIE-Single-Container { \{G3-IEs\} }
G3-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory }
G-List1 ::= ProtocolIE-Single-Container { G1-IEs} }
G1-IES RNSAP-PROTOCOL-IES ::= {
  { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
                   G-List4 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
          RNSAP-PROTOCOL-EXTENSION ::= {
J-ExtIEs
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G4-IEs} }
G4-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
C ::= SEQUENCE {
                   K-List,
   iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL,
}
C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { K-IEs} }
K-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory }
K ::= SEQUENCE {
                   L-List,
   iE-Extensions ProtocolExtensionContainer { {K-ExtIEs} } OPTIONAL,
}
K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
                   M OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { \{L-ExtIEs\} } OPTIONAL,
L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExampleMessage-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

Annex D (normative): DRNS Behaviour at SRNC or RNSAP Signalling Bearer Failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE Contexts related to the SRNC need to be removed in DRNC.

D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection Failure

Termination of all or some of the UE Contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

D.1.1 Termination of all UE Contexts Related to a Specific SRNC

Termination of all UE Contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By "all" UE Contexts, it means all UEs having dedicated and/or common channel resources.

D.1.2 Termination of Specific UE Context

Termination of a specific UE Context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

D.2 DRNC Actions at UE Context Termination

When termination of the UE Context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE Context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

Annex E (informative): Change History

| | | | | Change | history |
|------------------|----------------|---|--|----------------|--|
| TSG RAN# | Version | CR | Tdoc RAN | New Version | Subject/Comment |
| RAN_06 | - | - | RP-99755 | 3.0.0 | Approved at TSG RAN #6 and placed under Change Control |
| RAN_07 | 3.0.0 | - | RP-000100 | 3.1.0 | Approved at TSG RAN #7 |
| RAN_07 | 3.0.0 | - | RP-000143 | 3.1.0 | Approved at TSG RAN #7 |
| RAN_07 | 3.0.0 | - | RP-000146 | 3.1.0 | Approved at TSG RAN #7 |
| RAN_08 | 3.1.0 | - | RP-000241 | 3.2.0 | Approved at TSC RAN #8 |
| RAN_08 RAN_08 | 3.1.0 3.1.0 | - | RP-000242 RP-000243 | 3.2.0 3.2.0 | Approved at TSG RAN #8 Approved at TSG RAN #8 |
| RAN_08 | 3.1.0 | - | RP-000243 | 3.2.0 | Approved at TSG RAN #8 Approved at TSG RAN #8 |
| RAN_09 | 3.2.0 | 145- | RP-000379 | 3.3.0 | Approved at 156 RAN #9 |
| | | 149, 151- 154, 156- 164, 166 167 | | | |
| RAN_09 | 3.2.0 | 168 169 171 173 174 176 178- 180 183- 193 | RP-000380 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_09 | 3.2.0 | 194- 200- | RP-000381 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_10 | 3.3.0 | 202- 219, 221- 228, 230, 232- 239, 241, 243- 257, 259, 260, 263- 265, 268- 272, 274- 278, 280, 281 | RP-000618 RP-000619 RP-000621 RP-000696 | 3.4.0 | Approved at TSG RAN #10 |
| RAN_11 | 3.4.0 | 282- 286, 288- 293, 295- 302, 304- 308, 311, 313- 319, 329, 332, 334- 335 | RP-010117 RP-010118 | 3.5.0 | Approved at TSG RAN #11 |

| Change history | | | | | | | | | |
|--------------------|----------|------------------------|--------------|----------|--|-------|----------------|--|--|
| Date | TSG # | TSG Doc. | CR | Rev | Subject/Comment | Old | New | | |
| March 01 | 11 | RP-010167 | 310 | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 | | |
| March 01 | 11 | RP-010164 | 309 | | | | | | |
| March 01 | 11 | RP-010159 | 327, | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 | | |
| | | | 328, | | | | | | |
| | | | 336, 337 | | | | | | |
| March 01 | 11 | RP-010160 | 320, | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 | | |
| IVIAICII O I | '' | 1010100 | 323, | | Approved at 130 NAN #11 and placed under change control | | 4.0.0 | | |
| | | | 339 | | | | | | |
| 06/2001 | 12 | RP-010378 | 341, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 | | |
| | | | 343, | | | | | | |
| | | | 345, | | | | | | |
| | | | 347, | | | | | | |
| | | | 349, 351, | | | | | | |
| | | | 353, | | | | | | |
| | | | 355, | | | | | | |
| | | | 357, | | | | | | |
| | | | 359 | | | | | | |
| 06/2001 | 12 | RP-010379 | 361, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 | | |
| | | | 363, | | | | | | |
| | | | 365, | | | | | | |
| | | | 367, | | | | | | |
| | | | 369, | | | | | | |
| | | | 378, 380, | | | | | | |
| | | | 382, | | | | | | |
| | | | 388, | | | | | | |
| | | | 390 | | | | | | |
| 06/2001 | 12 | RP-010380 | 399, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 | | |
| | | | 403, | | | | | | |
| | | | 405, | | | | | | |
| | | | 407, | | | | | | |
| | | | 409, 411, | | | | | | |
| | | | 411, | | | | | | |
| 06/2001 | 12 | RP-010394 | 372, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 | | |
| 00/2001 | | 1 0.0001 | 373, | | 7.5510.000 00.100 10.000.12 | 1.0.0 | | | |
| | | | 374, | | | | | | |
| | | | 375, | | | | | | |
| | | | 376, | | | | | | |
| | | | 379, | | | | | | |
| | | | 380, | | | | | | |
| | | | 391, 393, | | | | | | |
| | | | 412 | | | | | | |
| 09/2001 | 13 | RP-010583 | | 2 | Ambiguity in CM handling | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | | 1 | Corrections to the DSCH Code Mapping IE | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | 418 | | Transport bearer replacement clarification | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | | | | Correction to the Error handling of the ERROR INDICATION | 4.1.0 | 4.2.0 | | |
| | | RP-010583 | | 1 | message | | | | |
| 09/2001 | 13 | RP-010583 | | 2 | Cell Reserved for operator use | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | | 1 | Clarification of Abnormal Conditions/Unsuccessful Operation | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | | 1 | TFCS Correction for TDD | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | | 1 | Correction of a wrong implementation of CR 414 | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | | 1 | Error handling of the Erroneously Present Conditional les | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010583 | | 1 | Correction to Downlink Signaling Transfer | 4.1.0 | 4.2.0 | | |
| 09/2001 09/2001 | 13 13 | RP-010584 RP-010584 | | - | Bitstrings ordering Mapping of TFCS to TFCI | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010584 | | | TDD Channelisation code range definition | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010584 | | 2 | Clarification of coordinated DCHs | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010584 | | 1 | Clarification on the Time Slot LCR | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | | | 1 | Rnsap criticality | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010584 | | 1 | Clarification of chapter 10 | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | RP-010584 | 472 | 1 | Clarification of use of Diversity Control Indicator | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | 1 310004 | ··- | <u> </u> | Clarification on the reference of the "Neighbouring TDD Cell | 4.1.0 | 4.2.0 | | |
| = | - | RP-010596 | 415 | | Information LCR" | | | | |
| | 1 | 1 | T - | 1 | Allowed Combinations of Dedicated Measurement Type and the | 4.1.0 | 4.2.0 | | |
| 09/2001 | 13 | | | | | | 1 | | |
| 09/2001 | 13 | RP-010596 | 420 | 2 | Reporting Characteristics Type | | | | |
| 09/2001 09/2001 | 13 | RP-010596 RP-010596 | | 2 | | 4.1.0 | 4.2.0 | | |
| | | | 423 430 | 2 | Reporting Characteristics Type | 4.1.0 | 4.2.0 4.2.0 | | |

| 09/2001 | 13 | RP-010596 | 438 | 1 | Clarification of Abnormal Conditions/Unsuccessful Operation | 4.1.0 | 4.2.0 |
|-------------------------------|----------|------------------------|------------|---|--|-------|-------|
| 09/2001 | 13 | RP-010596 | 455 | 1 | Correct ion to position reporting | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010596 | 461 | 1 | CR to 25.423 v4.1.0: RX timing deviation as dedicated measurement for 1.28Mcps TDD | 4.1.0 | 4.2.0 |
| 12/2001 | 14 | RP-010896 | | 2 | CR on Priority range | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | 480 | | Bitstrings ordering | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | 482 | | Added UTRAN modes in the Semantics Description in IEs in RNSAP messages | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | | Alignment to RAN4 spec for Transmitted Code Power Measurement | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | | Transmit Diversity for TDD | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | | Clarification for the definition of the ASN.1 constants | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | 1 | Terminology Corrections | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | | Procedure Code Criticality in Error Indication | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | | Clarification for the Power Adjustment Type IE in the DL POWER CONTROL REQUEST message | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | 1 | Forward Compatibility for DL Power Balancing | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | ' | Reconfiguration clarification | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | 2 | DRNC behaviour at SRNC or RNSAP Signalling Bearer failure | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | 2 | Addition of amendment to clarify the PER encoding of bitstrings | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | _ | Clarification on Primary CPICH Ec/No IE | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | 2 | Transport Bearer replacement clarification for the DSCH case | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | _ | Clarification of the Transaction ID | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | | Clarification of S Field Length usage | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | | Correction the Clause 10 Error Handling | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | | Correction to Primary CPICH handling in RL Setup procedure | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 1 | Correction to Filmary CFICH Handling III KE Setup procedure Correction of drift rate resolution | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | | Cell Parameter ID IE definition for 1.28Mcps TDD | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | | Introduction of Band Indicator in GSM Neighbouring Cell Information | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | | UL SIR Target in RL Setup Request TDD | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 2 | Handling of the DPC Mode IE | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 1 | Rel-4 specific terminology corrections | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 1 | Correction to the RNSAP Congestion Indication | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 2 | SFN-SFN quality indication | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010911 | | 1 | Correction to SFN-SFN Observed Time Difference Measurement report mapping | 4.2.0 | 4.3.0 |
| 03/2002 | 15 | RP-020169 | | 3 | RNSAP signalling support for flexible split | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020169 | | 1 | Setting of Initial power in a new CCTrCH in TDD | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020169 | | ı | Clarification to measurement unit at Higher Layer Filtering. | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020169 | | 2 | New UE identifier for MAC-c/sh multiplexing for DSCH | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020169 | | 1 | Correction to physical channels which SCTD can be applied (lur) | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | | 1 | Corrections to the Information Exchange Initiation procedure | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | | | Correction to UE position measurements quality and threshold | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | | 1 | information Correction to UE position measurements quality and threshold Correction to UE position measurements change and deviation limit | | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 552 | ' | Re-ordering of cause values | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 561 | | Clarification to the Allowed Rate Information in RL | 4.3.0 | 4.4.0 |
| 00/2002 | | 020101 | | | Setup/Addition/Reconfiguration response and RL Reconfiguration Ready messages. | | |
| 03/2002 | 15 | RP-020181 | 562 | 1 | Modification of the T_utran-gps length | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 567 | | Amendment of the COMMON MEASUREMENT INITIATION REQUEST message | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 576 | 2 | Load Value Extension | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 588 | | The correction on duplicated allocation of protocollE-ID | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 589 | 4 | Enhanced DSCH and syntax error ASN.1 correction | 4.3.0 | 4.4.0 |
| 03/2002 | 15 15 | RP-020181 RP-020231 | 596 586 | 2 | Introduction of ellipses for IPDL parameters | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | 115-020231 | 500 | | Removing of channel coding option "no coding" for FDD Power Balancing Activation with Radio Link Setup and Radio Link | 4.4.0 | 5.0.0 |
| | | RP-020188 | 433 | 4 | Addition procedures in RNSAP | | |
| 03/2002 | 15 | RP-020188 | | 3 | Power Balancing Restart with Radio Link Reconfiguration procedure in RNSAP | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | | 2 | Traffic class signalling over lur | 4.4.0 | 5.0.0 |
| 00/000 | 15 | RP-020188 | | 2 | Alignment to RAN4 specifications for CPICH Ec/No | 4.4.0 | 5.0.0 |
| 03/2002 | | | | | IDNOAD Cincelling assessed for flowible bond onlik | 1110 | 5.0.0 |
| 03/2002 03/2002 03/2002 | 15 15 | RP-020194 | 543 | 2 | RNSAP Signalling support for flexible hard split Add IPDL TDD parameters for LCR in RNSAP information element | 4.4.0 | 5.0.0 |

| 03/2002 | 15 | RP-020192 | 533 | 1 | Introduction of cell capability container over lur | 4.4.0 | 5.0.0 |
|---------|----|-------------|-----|---|---|-------|--------------|
| 03/2002 | 15 | RP-020189 | | 2 | Introduction of IP Transport option in UTRAN | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020197 | | 1 | lur Common Transport Channel Efficiency Optimisation | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | | | RNSAP Reset procedure | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020199 | | 2 | Separation of Resource Reservation and Radio Link Activation | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020196 | 564 | | Introduction of RL Timing Adjustment support | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | | | | Introduction of the Neighbouring TDD Cell Measurement | 4.4.0 | 5.0.0 |
| | | RP-020193 | 568 | 1 | Information LCR | | |
| 03/2002 | 15 | RP-020188 | 569 | 1 | Uplink SIR Target in RL Setup Response TDD | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020190 | 570 | 3 | HSDPA RL-Level Signalling | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | | | | Introduction of Angle of Arrival enhanced UE positioning for | 4.4.0 | 5.0.0 |
| | | RP-020193 | 571 | 1 | 1.28Mcps TDD in RNSAP | | |
| 03/2002 | 15 | RP-020188 | 572 | 2 | Traffic class signalling for USCH | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | | | | New Measurement Type in Common Measurements and | 4.4.0 | 5.0.0 |
| | | RP-020188 | | 4 | Information Exchange | | |
| 03/2002 | 15 | RP-020194 | | 3 | RNSAP changes for TFCI power control in DSCH hard split mode | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | | 1 | Introduction of the cell relation parameters | 4.4.0 | 5.0.0 |
| 06/2002 | 16 | RP-020426 | | 4 | Introduction of Qth signalling in UTRAN | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020406 | | | Criticality Information Decoding Failure Handling | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020406 | | 1 | Alignment of tabular and ASN.1 coding for DL power | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020406 | 605 | 1 | Correction to RL Restore Indication | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | | | | New UE identifier for Shared Channel handling for TDD | 5.0.0 | 5.1.0 |
| 00/000 | 10 | RP-020406 | _ | | DSCH/USCH | | |
| 06/2002 | 16 | RP-020406 | | 1 | Clarification of Cell individual offset | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020419 | | | Clarification on the Neighboring TDD Cell Measurement information | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020422 | | | HS_DSCH Support Indicator in FDD Cell Capability Container | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020432 | | | Removal of syntax errors from ASN.1 | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020422 | | | Interaction between HSDPA and IP transport in UTRAN | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020428 | 623 | | RNSAP changes for TFCI power control in DSCH hard split mode | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | | | | Correction to the use of the CFN IE / SFN IE in the Measurement | 5.0.0 | 5.1.0 |
| | | RP-020406 | | 1 | Initiation procedures | | |
| 06/2002 | 16 | RP-020406 | | | TFCI 0 definition for TDD | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020406 | | 1 | CELL_DCH to CELL_FACH TDD correction | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020407 | 641 | 1 | DSCH Information Correction | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | | | | Definition of quality figures for SFN-SFN and Tutran-gps | 5.0.0 | 5.1.0 |
| 00/0000 | 40 | RP-020419 | | | measurement value information | | 5.4.0 |
| 06/2002 | 16 | RP-020407 | | 1 | Clarification for the usage of the cause value | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020422 | | 2 | HS-DSCH Initial credits | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020419 | | 1 | Clarification to the RNSAP RL Congestion procedure | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020432 | | 1 | DSCH Support Indicator in Cell Capability Container | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020407 | | | RNSAP Tabular alignment to ASN1 and other corrections | 5.0.0 | 5.1.0 |
| 06/2002 | 16 | RP-020447 | 669 | 2 | Support of lur-g procedures (implemented after PCG endorsement) | 5.1.0 | 5.2.0 |
| 09/2002 | 17 | RP-020607 | 675 | | Correction of Criticality of RL set information in Dedicated Measurement initiation | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020614 | 677 | 1 | Rx Timing Deviation (TDD) corrections | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020616 | 679 | 1 | Clarification of the Common Measurement Reporting procedure | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020607 | 681 | | Clarification to DCH Rate Control for modified DCHs | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020648 | 682 | 3 | CQI and ACK/NACK Repetition factor and Power Offset and k-value | 5.2.0 | 5.3.0 |
| 00/0000 | 4= | DB 000000 | 200 | | | | |
| 09/2002 | 17 | RP-020622 | | | Change of Maximum Number of HS-SCCH Codes | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020652 | 684 | 2 | Required enhancements due to GERAN specific impacts on the lucs interface | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020618 | 685 | | Clarification for the initial power of the power balancing (Pinit) | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020651 | 686 | 2 | Partial dedicated measurement reporting | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020646 | 687 | 1 | DSCH Initial Credits | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020619 | 688 | | Removal of BLER for HS-DSCH | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020617 | 689 | 1 | Correction for inconsistency in length of TFCI field 2 | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020612 | | | WG4 Reference Corrections | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020607 | | 2 | RNSAP Procedures alignment to NBAP and other corrections | 5.2.0 | 5.3.0 |
| 00/2002 | '' | 131 -020007 | 034 | _ | Travers i recodures angimient to repair and other confections | 0.2.0 | 3.3.0 |

| 09/2002 | 17 | RP-020607 | 696 | 2 | Handling of Common measurement of neighbor cell information elements | 5.2.0 | 5.3.0 |
|---------|----|-----------|-----|---|--|-------|-------|
| 09/2002 | 17 | RP-020589 | 700 | 1 | Replacing all occurences of P _{SIR} (k) by dP _{curr} in 25.423 | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020623 | 701 | 1 | RL Parameter Update Procedure | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020625 | 702 | 1 | Introduction of Shared Network Area information support | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020603 | 705 | 2 | Correction of the Error Indication | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020613 | 707 | 2 | Uplink Synchronisation in 1.28Mcps TDD | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020628 | 714 | | Traffic Class for HS-DSCH | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020607 | 716 | 1 | Clarification of the DCH rate coding | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020649 | 717 | 1 | HS-SCCH Power offset | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020603 | 720 | 1 | Correction to Compressed Mode in RL Addition Failure | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020615 | 722 | | Quality les for UE positioning measurements | 5.2.0 | 5.3.0 |

| 12/2002 | 18 | RP-020758 | 724 | | Add UL SIR_target for Unsynchronized RL Reconfiguration in 1.28Mcps TDD | 5.3.0 | 5.4.0 |
|--|--|--|---|---|--|--|---|
| 12/2002 | 18 | RP-020757 | 726 | | Correction to RX Timing Deviation LCR value range | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020759 | | 2 | Slot Format for 1.28Mcps TDD | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020762 | | 1 | MAC-hs Reset Indicator | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020773 | 730 | 1 | Measurement power offset signalling for HSDPA | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020768 | 731 | | Power offset values for HS-DPCCH | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020762 | 732 | | Correction on the Cell Capacity Class | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020762 | 733 | | Rel-5 ASN.1 Error correction | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020753 | 738 | 2 | Final Corrections from RNSAP Procedure Review | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020767 | 742 | 1 | Addition of the second TDD Channelisation Code of HS-SCCH for | 5.3.0 | 5.4.0 |
| | | | | | the 1.28Mcps TDD option. | | |
| 12/2002 | 18 | RP-020765 | 744 | 1 | Clarfication of the usage of HS-DSCH-RNTI | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020766 | 753 | | Clarification for the inclusion of the DL Power Balancing Updated | 5.3.0 | 5.4.0 |
| | | | | | Indicator IE | | |
| 12/2002 | 18 | RP-020744 | 756 | | Correction for the DL DPDCH transmission | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020855 | 757 | 3 | MAC-hs Window Size | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020743 | 763 | 1 | DSCH-RNTI in RADIO LINK SETUP FAILURE | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030068 | 767 | | Clarification to DL Power definition for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030077 | 768 | 2 | Correction to DL Tx Power for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030072 | 770 | 1 | TPC Step Size for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030069 | 772 | | Clarification to 2nd Interleaving Mode for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030078 | 773 | 1 | HS-PDSCH RNSAP Corrections for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030073 | 775 | 1 | Clarification of HS-SCCH power offset usage in case of multiple | 5.4.0 | 5.5.0 |
| | | | | | HS-SCCHs | | |
| 03/2003 | 19 | RP-030062 | 778 | | Correction of Guaranteed DL Rate | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030062 | | 1 | Correction of the TDD UE capabilities necessary to pass from | 5.4.0 | 5.5.0 |
| | | | | | SRNC to CRNC | | |
| 03/2003 | 19 | RP-030080 | 781 | 1 | Measurement for HS-SICH Outer Loop Power Control | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030082 | 784 | 1 | Corrections to Channelisation Code TFCI Mapping for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030070 | 786 | | Correction for the Information Exchange Initiation procedure | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030074 | 787 | 1 | T1 signalling for HSDPA | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030183 | | 5 | Support of Cell Individual Offset in RNSAP | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030071 | | _ | Midamble Configuration for Midamble Shift LCR | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | 1 | 796 | | Alignment of "Uncertainty Ellipse" with RRC | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030058 | | 2 | Uplink Timing Advance Control Parameters in LCR TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030119 | | 1 | Signalling of Midamble Shift and Burst type for HS-PDSCH in TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030066 | | | Corrections to DCH Combining in RL SETUP and RL ADDITION | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030058 | | | Correction on CGA Additional Shapes | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030076 | | 2 | Guaranteed Bit Rate for HSDPA | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030332 | | _ | Alignment of TDD HSDPA parameters to RAN2 and RAN 1. | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030333 | | | HSDPA General Corrections | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030358 | | 3 | Group reset | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030334 | | | TDD Channelisation Code LCR correction for HSDPA | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030319 | | | Correction of the figure of the Information Exchange Failure | 5.5.0 | 5.6.0 |
| 00/2000 | 20 | 141 000013 | 022 | | procedure | 0.0.0 | 0.0.0 |
| 06/2003 | 20 | RP-030324 | 824 | 1 | Alignment of the Requested Data Value Information IE description | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030325 | | ' | GPS trigger condition | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030319 | | | Alignment of tables in Information Exchange Initiation procedure | 5.5.0 | 5.6.0 |
| 00/2003 | 20 | 1000010 | 021 | | description | 3.3.0 | 5.0.0 |
| 06/2003 | 20 | RP-030329 | 832 | 2 | HS-SCCH Change Indicator | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030329 | | | Correction to HARQ Memory Partitioning | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | | 836 | | Correction to HARQ Memory Partitioning Correction for the value range of "CQI Feedback cycle, k" | 5.5.0 | 5.6.0 |
| | 20 | | | 2 | | | |
| 06/2003 | | RP-030279 | | 2 | Clarification for the handling of the HS-DSCH | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030328 | | | Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030326 | | 2 | · · | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030451 | 843 | 2 | Discard timer signalling for HSDPA | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030452 | | 1 | Phase Reference Signalling Support | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030449 | | 2 | HS-DSCH Priority Queue to Modify | 5.6.0 | 5.7.0 |
| 09/2003 | 0.4 | | 848 | 2 | MAC-hs Reordering Buffer Size | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030536 | 0 | | | 5.6.0 | 5.7.0 |
| | 21 | RP-030443 | | | Corrections to Tx Diversity | | |
| 09/2003 | 21 | RP-030443 RP-030440 | 853 | 1 | Correction of the Measurement Increase/Decrease Threshold IE | 5.6.0 | 5.7.0 |
| | 21 | RP-030443 | 853 | 1 | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information | | 5.7.0 5.7.0 |
| 09/2003 09/2003 | 21 21 21 | RP-030443 RP-030440 RP-030444 | 853 856 | 1 | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures | 5.6.0 5.6.0 | 5.7.0 |
| 09/2003 09/2003 09/2003 | 21 21 21 21 | RP-030443 RP-030440 RP-030444 RP-030445 | 853 856 857 | 1 | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2 | 5.6.0 5.6.0 5.6.0 | 5.7.0 5.7.0 |
| 09/2003 09/2003 09/2003 09/2003 | 21 21 21 21 21 21 | RP-030443 RP-030440 RP-030444 RP-030445 RP-030440 | 853 856 857 858 | 1 | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2 Corrections on Uplink Signalling Transfer | 5.6.0 5.6.0 5.6.0 5.6.0 | 5.7.0 5.7.0 5.7.0 |
| 09/2003 09/2003 09/2003 09/2003 09/2003 | 21 21 21 21 21 21 21 | RP-030443 RP-030444 RP-030444 RP-030445 RP-030440 RP-030447 | 853 856 857 858 860 | 2 | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2 Corrections on Uplink Signalling Transfer Coordination with RRC about the TFS of DL DCH for HS-DSCH | 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 | 5.7.0 5.7.0 5.7.0 5.7.0 |
| 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003 | 21 21 21 21 21 21 21 21 | RP-030443 RP-030440 RP-030444 RP-030445 RP-030447 RP-030453 | 853 856 857 858 860 862 | 2 | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2 Corrections on Uplink Signalling Transfer Coordination with RRC about the TFS of DL DCH for HS-DSCH HS-DSCH information usage description clarification | 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 | 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 |
| 09/2003 09/2003 09/2003 09/2003 09/2003 | 21 21 21 21 21 21 21 | RP-030443 RP-030444 RP-030444 RP-030445 RP-030440 RP-030447 | 853 856 857 858 860 862 865 | | Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2 Corrections on Uplink Signalling Transfer Coordination with RRC about the TFS of DL DCH for HS-DSCH | 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 | 5.7.0 5.7.0 5.7.0 5.7.0 |

(GSM Phase 2)

(Release 1996)

(Release 1997) (Release 1998)

(Release 1999)

(Release 4)

(Release 5)

(Release 6)

R96

R97

R98

R99

Rel-4

Rel-5

Rel-6

3GPP TSG-RAN3 Meeting #39 San Diego, USA, 17th – 21st November 2003

| San Diego | , USA, | 17''' – 2 | 1 st Nov | ember 200 | 03 | | | | | | |
|----------------|----------------|-------------|---------------------|----------------|-------------|--------|--------|----------------------------|--------------------------|---------|--|
| | CHANGE REQUEST | | | | | | | | | | |
| * | 25.4 | 23 | CR | 894 | ≋rev | 2 | ¥ | Current versi | on: 5.7.0 | H | |
| For <u>HEL</u> | P on us | ing this fo | orm, see k | pottom of this | page or | look a | at the | pop-up text | over the % sy | mbols. | |
| Proposed c | hange a | ffects: | UICC ap | рѕЖ | ME | Rad | dio Ad | ccess Networ | k X Core N | letwork | |
| Title: | ¥ | RNSAP | Review | | | | | | | | |
| Source: | \mathfrak{H} | RAN3 | | | | | | | | | |
| Work item o | ode:♯ | TEI5 | | | | | | <i>Date:</i> ♯ | 26/11/2003 | | |
| Category: | X | | f the follow | ing categories | s: | | | Release: 光 Use one of t | Rel-5 he following re | leases: | |

Reason for change: # This CR covers all the changes that were agreed during the RNSAP Rel-5 review. Some TDD specific comments are not included in this CR.

A (corresponds to a correction in an earlier release)

Summary of change: Rev 2:

<u>2</u>

F (correction)

B (addition of feature),

D (editorial modification)

be found in 3GPP TR 21.900.

C (functional modification of feature)

Detailed explanations of the above categories can

- 3GPP TS 25.101: "User Equipment (UE) radio transmission and reception (FDD)" added as reference [43].

9.1.3

- Name "TFCS for the UL" removed in the table.
- Name "TFCS for the DL" removed in the table.

9.1.11.1

- Font changed to italic.

9.1.16.1

- Range table added.

9.1.27

- Font changed to italic.

9.1.31

- Assigned Criticality changed to "ignore" for *HS-SICH ID* IE.

9.1.44

- Assigned Criticality changed to "ignore" for *Common Measurement Achieved Accuracy* IE.

9.2.1.14A

- New chapter added with definition of *CTFC* IE.

9.2.1.31F

- Additional IPDL Parameters IE added.

9.2.1.39A

- Criticality and Assigned Criticality removed for Message structure.

9.2.1.48

- Font changed to bold.
- Presence of *Measurement Threshold* IE set to "M".

9.2.1.48A

- Assigned Criticality changed to "ignore" for *Cell Capacity Class Value* IE.

9.2.1.52A

- Font changed to normal.

9.2.1.52C

- Presence of *UTRAN Cell Identifier* IE set to "M".
- Space removed in "IE Type and Reference" for *UTRAN Cell Identifier* IE.

9.2.1.52Ca

- Extension of the range removed for *List of SNAs* IE.

9.2.1.53a

- Extension mechanism added for S-RNTI bit mask index IE.

9.2.1.63

- "IE Type and Reference" changed for *CTFC* IE.
- Font changed to italic for Signalled Gain Factors.
- Font changed to italic for Computed Gain Factors.
- "IE Type and Reference" changed for CTFC(field1) IE.
- "IE Type and Reference" changed for *CTFC*(*field2*) IE.

9.2.1.76

- Font changed to italic for CHOICE tag FDD.
- Font changed to italic for CHOICE tag TDD.

9.2.1.77

- Font changed to italic for CHOICE tag FDD.
- Font changed to italic for CHOICE tag TDD.

9.2.2.4A

- Presence of *Traffic Class* IE changed to "O".

9.2.2.13A

- Presence of *Traffic Class* IE changed to "O".

9.2.2.21C

- Font changed to italic.

9.2.2.24d

- Font changed to normal.

9.2.2.27A

- "IE Type and Reference" changed for *DL Scrambling Code* IE.
- Presence of Choice Signalling Method set to "M".
- ENUMERATED changed to INTEGER for Spreading Factor IE.
- Font changed to normal.

9.2.2.38A

- Presence of *DL Scrambling Code* IE set to "M".
- Presence of *FDD DL Channelisation Code Number* IE set to "M". 9.2.2.39a
- Font changed to normal.

9.2.2.47A

- Font changed to normal.

9.2.2.40

- "IE Type and Reference" changed from (a..h) to (a, b, c, d, e, f, g, h). 9.3.4
- Removed correction that moved cqiPowerOffset to follow after ackNackRepetitionFactor.
- Removed correction that changed presence from optional to mandatory for mACdPDU-Size in PriorityQueue-InfoItem-to-Add.
- Note removed for diversityIndication.
- Note removed for id-DedicatedMeasurementObjectType.
- Criticality changed to ignore for id-HSSICH-Info-DM-Rprt.
- Note removed for id-CommonMeasurementObjectType-CM-Rqst.
- Note removed for id-InformationExchangeObjectType-InfEx-Rqst.
- "v7500." changed to "v7500," for DiscardTimer.
- dLReferencePowerList-DL-PC-Rqst change to dLReferencePowerList.
- Extension mechanism added for GA-AltitudeAndDirection.
- Extension mechanism added for GA-UncertaintyEllipse.
- "Phase-reference-needs-to-be-changed" changed to "phase-reference-needs-to-be-changed".
- "mACdPDU-Size-Index-to-Modify" changed to "mACdPDU-Size-Index".
- "MACdPDU-Size-IndexList-to-Modify" changed to "MACdPDU-Size-IndexList".
- Criticality changed to ignore for id-Cell-Capacity-Class-Value.
- "OPTIONAL" removed from note in RL-Specific-DCH-Info-Item.
- Presence of sFNSFNDriftRateQuality changed to optional.
- Presence of sFNSFNTimeStampInformation changed to mandatory.
- Reference "25.215" changed to "[11]".
- Reference "25.225" changed to "[14]".
- Reference "25.211" changed to "[8]".
- Extension of the range removed for ListOfSNAs.
- Extension mechanism added S-RNTI-Group.
- Reference "25.101" changed to "[43]".
- Reference "25.105" changed to "[7]".

- MaxNrOfSNAs changed to 65536.

Rev 1:

8.3.7.2

 Editorial correction of "-[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Modify* IEs or *IDL CCTrCH Information To Modify* Ies which contain a *TFCS* IE,...".

9.1.43

 Correction of extension container for COMMON MEASUREMENT INITIATION REQUEST.

9.1.57.1

- Assigned Criticality changed to "ignore" for all IEs.

9.1.57.2

- Assigned Criticality changed to "ignore" for all IEs.

9.1.58.1

- Assigned Criticality changed to "ignore" for all IEs.

9.1.58.2

- Assigned Criticality changed to "ignore" for all IEs.

9.2.1.5

- Presence of the first CHOICE set to "M".

9.2.1.12A

- Presence of the first CHOICE set to "M".

9.2.1.12D

- Presence of the first CHOICE set to "M".
- Correction of extension container for Common Measurement Value IE.

9.2.1.19

- Presence of the first CHOICE set to "M".

9.2.1.31C

- Presence of the first CHOICE set to "M".

9.2.1.35B

- Presence of the first CHOICE set to "M".

9.2.1.38

- Presence of the first CHOICE set to "M".

9.2.1.48

- Presence of the first CHOICE set to "M".

9.2.1.48a

- Presence of the first CHOICE set to "M".

9.2.1.63

- Presence of the first CHOICE set to "M".

9.2.1.76

- Presence of the first CHOICE set to "M".

9.2.1.77

- Presence of the first CHOICE set to "M".

9.2.2.38B

Presence of the first CHOICE set to "M".

9.3.4

- Addition of id-RTLoadValue.
- Addition of id-NRTLoadInformationValue.
- Correction of extension container for CommonMeasurementValue.

9.3.6

- Addition of id-RTLoadValue.
- Addition of id-NRTLoadInformationValue.

Rev 0:

3.1

- Removal of definition "Real Time" since it is already defined in 9.2.1.41I.
- Removal of definition "Non Real Time" since it is already defined in 9.2.1.50B.
- Removal of abbreviation "**Signalling radio bearer 2** (**SRB2**): The signalling radio bearer 2 is used by the UE to access a GERAN cell in order to perform RRC procedures [36].".

3.3

- Addition of abbreviation "HSDPA" High Speed Downlink Packet Access".
- Addition of abbreviation "NRT Non Real Time".
- Editorial correction of "Personal Communication Services".
- Addition of abbreviation "RT Real Time".

4.2

- Editorial correction of "The forwards and backwards compatibility of the protocol is assured by a mechanism in which all-current...".

<u>7</u>

- Addition of the "Radio Link Activation" Elementary Procedure as part of the Radio

Link Management function.

<u>7.1</u>

- Editorial correction of "Note: In the connection with the functions releated to the GERAN and UTRAN, the term RNC shall refer to RNC/BSS."

8.1

- Editorial correction of "RADIO LINK PARAMETER UPDATE -INDICATION".

8.2.1.2

- Editorial correction of "If there is no valid C-RNTI for the UE in the accessed cell-, the DRNS shall ...".
- Editorial correction of "Common Transport Channel Resources Initialisation <u>mN</u>ot Required IE".

8.2.1A

- Editorial correction of "GERAN Uplink Signalling Transfer".

8.2.1A.1

- Editorial correction of "The procedure is used by the DBSS to forward an Um message ...".

8.2.2.1.1

- Editorial correction of "The procedure is used by the SRNC/SBSS to request to the DBSS the transfer of an Um message ...".

8.3.1.2

- Editorial correction of "[FDD For each DCH which do not belong to a set of coordinated DCHs-, and .."
- Editorial correction of "Time of Arrival Window Start-Ppoint".
- Editorial correction of "Time of Arrival Window End-Ppoint".
- Editorial correction of "[FDD If the RADIO LINK SETUP REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that -dedicated ...".
- Editorial correction of "..., and be prepared that the DPC mode may be changed during the life-time of the RL."
- Editorial correction of "If the Neighbouring TDD Cell Information IE includes the Sync Case IE ...".
- Change of style from italic to normal in "FDD The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports Flexible Hard Split mode.".
- Editorial correction of "... *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalityies listed in 9.22.D, 9.23.1a and 9.23.1b."
- Editorial correction of "..., the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise *Restriction State lindicator* IE may be absent.".

8.3.2.2

- Editorial correction of "..., and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE and the PCCPCH Power IE, Coverage Indicator IE, Antenna Colocation Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE. or the Neighbouring TDD Cell Information LCR IE. If the Neighbouring TDD Cell Information IE...".
- Editorial correction of "The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalityies listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.".
- Editorial correction of "See also [40] for a broader description of the SNA access control.".
- Editorial correction of "[FDD If the RADIO LINK ADDITION REQUEST message contains an SSDT Cell Identity IE, the DRNS shall, if supported, activate SSDT for the concerned new RL using the indicated SSDT Cell Identity.]
- Editorial correction of "If the Permanent NAS UE Identity IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.".

8.3.2.3

- Editorial correction of "If the establishment of at least one RL is unsuccessful, the DRNC shall respond with a RADIO LINK ADDITION FAILURE message.".
- Removal of double enters after the second paragraph.

8.3.3.2

- Editorial correction of "Upon receipt of this message, the DRNS shall delete the radio link(s) identified by the *RL ID* IE(s) -in the message, ...".
- Editorial correction of "... N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set."

8.3.4.2

- Editorial correction of "If the *DCHs + To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:".
- Procedure text added for *Unidirectional DCH Indicator* IE.
- Editorial correction of "Time of Arrival Window Start-Ppoint".
- Editorial correction of "Time of Arrival Window End-Ppoint".
- Editorial correction of "If the *DCHs* *To Add IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, ...".
- Editorial correction of "If the *DCH Specific Info* IE in the *DCHs* *To Add IE does not include the Guaranteed UL Rate IE, the DRNS shall not limit the user rate of the uplink of the DCH.".
- Editorial correction of "If the DCH Specific Info IE in the DCHs +To Add IE does not include the Guaranteed DL Rate IE, the DRNS shall not limit the user rate of the downlink of the DCH.".
- Editorial correction of "[FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE_set to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]".
- Removed underline for "Primary CPICH usage for channel estimation information

has been reconfigured".

- Removed underline for "for channel estimation has been reconfigured".

8.3.7.2

- Editorial correction of "If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE ...".
- Editorial correction of "If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE ...".
- Editorial correction of "[FDD If the *DRAC Control* IE is present and set to "requested" in *DCHs* ******To Modify* IE for at least one DCH, ...".
- Procedure text added for *Unidirectional DCH Indicator* IE.
- Editorial correction of "Time of Arrival Window Start-Ppoint".
- Editorial correction of "Time of Arrival Window End-Ppoint".
- Editorial correction of "In the case of a Radio Link being combined with another Radio Link within the DRNS, the DRNC shall include the *Transport Layer Address* IE ...".

8.3.8.3

- Editorial correction of "..., including the reason for the failure in the Cause IE.".

8.3.10.2

 Editorial correction of "The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when and as specified by the UL Uu synchronisation detection algorithm ...".

8.3.11.2

- Editorial correction of "If the Dedicated Measurement Object Type is indicated as being "RL" jin the DEDICATED MEASUREMENT INITIATION REQUEST message, ...".
- Editorial correction of "-[FDD If the Dedicated Measurement Object Type is indicated as being "RLS" <u>ji</u>n the DEDICATED MEASUREMENT INITIATION REQUEST message, ...]".
- Editorial correction of "..., and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE.".
- Editorial correction of "... Dedicated Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold*".
- Editorial correction of "After reporting this type of event, DRNS shall not initiate the next C event reporting for the same measurement during the subsequent_time specified by the *Measurement Change Time* IE.".

8.3.15.1

- Editorial correction of "The purpose of this procedure is to balance the DL transmission powers of one or more radio links for one UE.".

8.3.15.2

- Editorial correction of "If the value of the *Power Adjustment Type* IE is "None", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to

- "None" and the DRNS shall suspend on going power adjustments for all radio links for the UE Ceontext.".
- Font changed from Pref to P_{ref} and Pinit to P_{init} .

8.3.16.2

- Editorial correction of "..., the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences. From that moment on all Transmission Gap Pattern Sequences ...".

8.3.18.2

- Editorial correction of "If all Radio Links for a UE Context should be pre-empted, the *RL Information* IE shall not be included in the message.".

8.3.19.2

 Editorial correction of "When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the Congestion Cause IE and the indicated Allowed DL Rate IE and/or Allowed UL Rate IE for a DCH.".

8.3.21.2

- Editorial correction of "Figure 26E: Radio Link Parameter Update Indication, Successful Operation.".
- Editorial correction of "[FDD If the DRNS needs to update the CQI Feeedback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including CQI Feeedback Cycle k IE, CQI Repetition Factor IE, ACK-NACK Repetition Factor IE, CQI Power Offset IE, ACK Power Offset IE and/or NACK Power Offset IE.]".

8.4.1.2

- Editorial correction of "The DRNC may use the *Transport Layer Address* and *Binding ID* IEs ...".

8.4.1.3

- Editorial correction of "... COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.".
- Editorial correction of "..., the DRNC shall reject the procedure -and send the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, ...".

8.5.2.2

- Editorial correction of "... Reference Cell Identifier_IE and the neighbouring cells identified by the UTRAN Cell Identifier IE (UC-ID) in the Neighbouring Cell Measurement Information IE.".
- Editorial correction of " F_n is the deviation of the last measurement result from the predicted *SFN-SFN* value (P_n) when n measurements haves been received ...".
- Editorial correction of "..., then the concerned RNC₂ shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.".
- Correction to specify the inclusion of the *Common Measurement Object Type* IE in the COMMON MEASUREMENT INITIATION RESPONSE message.
- Editorial correction of "If the *Common Measurement Type* IE is set to "UTRAN GPS

Timing of Cell Frames for UE Positioning" and ...".

8.5.2.4

- Editorial correction of "...but the T_{UTRAN-GPS} Measurement Minimum Accuracy Class IE in the Common Measurement Accuracy IE is not received included in the COMMON MEASUREMENT INITIATION REQUEST message, ...".
- Addition of a sentence specifying the behaviour if Common Measurement Accuracy
 IE is included but the measurement type is not "UTRAN GPS Timing of Cell Frames
 for UE Positioning".

8.5.6.2

- Clarification that PRC Deviation IE is contained in the Information Threshold IE.
- Editorial correction of "..., identified by the Sat_ID IEs.".

9.1.11.1

- Editorial correction of "DCHs *To Delete".

9.1.16.1

Editorial correction of "DCHs +To Delete".

9.1.24.1

9.1.29

- Comment added for RL or ALL RL IE.
- Comment added for RLS or ALL RLS IE.

9.1.31

- Comment added for *RL or ALL RL* IE.
- Comment added for RLS or ALL RLS IE.

9.1.43

- Space removed after ">>>" in the IE/Group Name.

9.1.55

- Editorial correction of "Semantics Description".

9.2.1.12F

Editorial correction of "Common Transport Channel Resources Initialisation not Required".

9.2.1.13

 Editorial correction of "Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them."

9.2.1.19Ab:

- Presence of the "CHOICE Activation Type" set to "M".

- Space added before Initial DL TX Power".
- Presence of the "CHOICE Deactivation Type" set to "M".

9.2.1.20

- Alignment with the ASN.1by adding "..." at the end of the enumeration.

9.2.1.30

 Editorial correction of "The Frame —Ooffset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu.".

9.2.1.30Fb

- Editorial correction of "The *GERAN Classmark* IE is used to transfer the capabil<u>i</u>ties of a certain GERAN Iu-mode capable cell via the Iur interface.".

9.2.1.30J

- Editorial correction of "Satellite information".

9.2.1.30Na

- Maximum Range value changed from 16 to *maxNoofPriorityClasses* for *HS-DSCH Initial Capacity Allocation* IE.

9.2.1.31E

- Editorial correction of "This IE shall be present if the *Information Type Item_*IE indicates "GPS Information".".

9.2.1.34C

- Editorial correction of "The MAC-hs Window Si-ze IE is used for MAC-hs PDU retransmission as defined in [41].".

9.2.1.38

- Editorial correction of "Units are the same as for the Uplink *Load Value* IE and *Downlink Load Value* IE.".

9.2.1.39A

- Editorial correction of "The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE)."
- Editorial correction of "The last repetition of the *Message Structure* IE corresponds to the level above the reported level for the occurred error of the message.".
- Editorial correction of "Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.".

9.2.1.40

- Editorial correction of ""27" = Common Measurement_Initiation".
- Editorial correction of ""29" = Common Measurement_Termination".

9.2.1.41I

- Editorial correction of "Probability to admit# a new user is low.".

9.2.1.43

- Editorial correction of "Unit dBm_Range –15.0 to 40.0 dBm,".

9.2.1.47

- Editorial correction of "The contents is defined in ref. [2].".

9.2.1.53a

- Editorial correction of "The S-RNTI group is identified by all S-RNTI values whose bits starting from the most significant bit down to, and including, ...".

9.2.1.63

- Editorial correction of "The first instance of the *Transport fFormat*eCombination_DCH IE corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on.".
- Presence of the CHOICE Signalling Method set to "M".
- Editorial correction of "The first instance of the *Transport Format eCombination_DCH* IE corresponds to TFCI (field 2) = 0, the second to TFCI (field 2) = 1 and so on."

9.2.2.13A

- Comment added for DSCH Specific FDD Information IE.

9.2.2.19a

- Correction of criticality for *Discard Timer* IE.

9.2.2.19b

Editorial correction of "HARQ Memory Partitioning Information".

9.2.2.34a

- Range added for *Qth Parameter* IE.

9.2.2.39a

- Editorial correction of "This parameter indicates if the "Hard" or "Logical" is used for the TFCI- split mode.".

9.3.4

- Addition of *maxNrOfPriorityClasses*.
- Comment added for id-HSPDSCH-RL-ID in RadioLinkSetupRequestFDD-Extensions.
- Comment added for cqiRepetitionFactor in HSDSCH-FDD-Information.
- Moved cqiPowerOffset to follow after ackNackRepetitionFactor.
- Moved mAChs-Reordering-Buffer-Size to follow after priorityQueue-Info-to-Modify.
- Maximum Range value changed from 16 to *maxNrOfPriorityClasses* for HSDSCH-Initial-Capacity-Allocation.
- Presence changed from optional to mandatory for mACdPDU-Size in PriorityQueue-

InfoItem-to-Add.

9.3.6

- Addition of maxNrOfPriorityClasses.

<u>Impact assessment towards the previous version of the specification (same release):</u>

This CR has isolated impact towards the previous version of the specification (same release).

This CR has no impact, because it is a collection of many clarification and correction of editorial errors.

Consequences if not approved:

The procedure text in the specification will remain inconsistent, as well as the tabular format. Furthermore, the ASN.1 will not be correct (syntaxically and logically).

Clauses affected:

2, 3.1, 3.3, 4.2, 7, 7.1, 8.1, 8.2.1.2, 8.2.1A, 8.2.1A.1, 8.2.2.1.1, 8.3.1.2, 8.3.2.2, 8.3.2.3, 8.3.3.2, 8.3.4.2, 8.3.7.2, 8.3.8.3, 8.3.10.2, 8.3.11.2, 8.3.15.1, 8.3.15.2, 8.3.16.2, 8.3.18.2, 8.3.19.2, 8.3.21.2, 8.4.1.2, 8.4.1.3, 8.5.2.2, 8.5.2.4, 8.5.6.2, 9.1.3, 9.1.11.1, 9.1.16.1, 9.1.24.1, 9.1.27, 9.1.29, 9.1.31, 9.1.43, 9.1.44, 9.1.55, 9.2.1.5, 9.2.1.12A, 9.2.1.12D, 9.2.1.12F, 9.2.1.13, 9.2.1.14A, 9.2.1.19, 9.2.1.19Ab, 9.2.1.20, 9.2.1.30, 9.2.1.30Fb, 9.2.1.30J, 9.2.1.30Na, 9.2.1.31C, 9.2.1.31E, 9.2.1.31F, 9.2.1.34C, 9.2.1.35B, 9.2.1.38, 9.2.1.39A, 9.2.1.40, 9.2.1.41I, 9.2.1.43, 9.2.1.47, 9.2.1.48, 9.2.1.48a, 9.2.1.48A, 9.2.1.52A, 9.2.1.52C, 9.2.1.52Ca, 9.2.1.53a, 9.2.1.63, 9.2.1.76, 9.2.1.77, 9.2.2.4A, 9.2.2.13A, 9.2.2.19a, 9.2.2.19b, 9.2.2.21C, 9.2.2.24d, 9.2.2.27A, 9.2.2.34a, 9.2.2.38A, 9.2.2.38B, 9.2.2.39a, 9.2.2.40, 9.2.2.47A, 9.3.4, 9.3.6

Other specs affected:

Other comments: #

How to create CRs using this form:

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

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Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- x the first digit:
 - 1 presented to TSG for information;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

[19]

The present document specifies the radio network layer signalling procedures of the control plane between RNCs in UTRAN, between RNC in UTRAN and BSS in GERAN Iu mode and between BSSs in GERAN Iu mode.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.
- 3GPP TS 23.003: "Numbering, addressing and identification". [1] [2] 3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling". 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for [3] DCH Data Streams". [4] 3GPP TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams". 3GPP TS 25.435: "UTRAN Iub interface User Plane Protocols for Common Transport Channel [5] Data Streams". 3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception". [6] [7] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception". 3GPP TS 25.211: "Physical Channels and Mapping of Transport Channels onto Physical Channels [8] (FDD)". 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)". [9] [10] 3GPP TS 25.214: "Physical Layer Procedures (FDD)". 3GPP TS 25.215: "Physical Layer – Measurements (FDD)". [11] 3GPP TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels [12] (TDD)". [13] 3GPP TS 25.223: "Spreading and Modulation (TDD)". 3GPP TS 25.225: "Physical Layer - Measurements (TDD)". [14] 3GPP TS 25.304: "UE Procedures in Idle Mode" [15] [16] 3GPP TS 25.331: "RRC Protocol Specification". [17] 3GPP TS 25.402: "Synchronisation in UTRAN, Stage 2". ITU-T Recommendation X.680 (12/97): "Information technology - Abstract Syntax Notation One [18] (ASN.1): Specification of basic notation".

(ASN.1): Information object specification".

ITU-T Recommendation X.681 (12/97): "Information technology - Abstract Syntax Notation One

| [20] | ITU-T Recommendation X.691 (12/97): "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)". |
|------|---|
| [21] | 3GPP TS 25.213: "Spreading and modulation (FDD)". |
| [22] | 3GPP TS 25.224: "Physical Layer Procedures (TDD)". |
| [23] | 3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)". |
| [24] | 3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)". |
| [25] | 3GPP TS 23.032: "Universal Graphical Area Description (GAD)". |
| [26] | 3GPP TS 25.302: "Services Provided by the Physical Layer". |
| [27] | 3GPP TS 25.213: "Spreading and modulation (FDD)". |
| [28] | 3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling". |
| [29] | GSM TS 05.05: "Digital cellular telecommunications system (Phase 2+); Radio transmission and reception". |
| [30] | ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface". |
| [31] | RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)". |
| [32] | 3GPP TS 25.425: "UTRAN Iur and Iub Interface User Plane Protocols for Common Transport Channel data streams ". |
| [33] | IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification". |
| [34] | IETF RFC 768 "User Datagram Protocol", (8/1980) |
| [35] | 3GPP TS 25.424: " UTRAN Iur Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ". |
| [36] | 3GPP TS 44.118: "Mobile radio interface layer 3 specification; Radio Resource Control (RRC) Protocol Iu mode". |
| [37] | 3GPP TR 43.930: "Iur-g interface; Stage 2". |
| [38] | 3GPP TS 48.008: "Mobile-services Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification". |
| [39] | 3GPP TS 43.051: "GSM/EGDE Radio Access Network; Overall description - Stage 2". |
| [40] | 3GPP TS 25.401: "UTRAN Overall Description". |
| [41] | 3GPP TS 25.321: "MAC protocol specification". |
| [42] | 3GPP TS 25.306: "UE Radio Access capabilities". |
| [43] | 3GPP TS 25.101: "User Equipment (UE) radio transmission and reception (FDD)". |

3 Definitions, Symbols and Abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Elementary Procedure: RNSAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between two RNCs. An EP consists of an initiating message and possibly a response message. Two kinds of EPs are used:

- Class 1: Elementary Procedures with response (success or failure);
- Class 2: Elementary Procedures without response.

For Class 1 EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

Prepared Reconfiguration: A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist any more after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed.

UE Context: The UE Context contains the necessary information for the DRNC/DBSS to communicate with a specific UE. The UE Context is created by the Radio Link Setup procedure or by the Uplink Signalling Transfer procedure when the UE makes its first access in a cell controlled by the DRNS/DBSS. The UE Context is deleted by the Radio Link Deletion procedure, by the Common Transport Channel Resources Release procedure, or by the Downlink Signalling Transfer procedure when neither any Radio Links nor any common transport channels are established towards the concerned UE. The UE Context is identified by the SCCP Connection for messages using connection oriented mode of the signalling bearer and the D-RNTI for messages using connectionless mode of the signalling bearer, unless specified otherwise in the procedure text.

Distant RNC Context: The Distant RNC context is created by the first Common Measurement Initiation Procedure or Information Exchange Initiation Procedure initiated by one RNC/BSS and requested from another RNC/BSS. The Distant RNC Context is deleted after the Common Measurement Termination, the Common Measurement Failure, the Information Exchange Termination or the Information Exchange Failure procedure when there is no more Common Measurement and no more Information to be provided by the requested RNC/BSS to the requesting RNC/BSS. The Distant RNC Context is identified by an SCCP connection as, for common measurements and information exchange, only the connection oriented mode of the signalling bearer is used.

Real Time (RT): Real time bearer services are those services associated with RABs whose traffic class is defined as *Conversational* or *Streaming*.

Non Real Time (NRT): Non Real time bearer services are those services associated with RABs whose traffic class is defined as *Interactive* or *Background*.

Signalling radio bearer 2 (SRB2): The signalling radio bearer 2 is used by the UE to access a GERAN cell in order to perform RRC procedures [36].

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

A-GPS Assisted-GPS
ALCAP Access Link C

ALCAP Access Link Control Application Part ASN.1 Abstract Syntax Notation One

ASN.1 Abstract Syntax Notation One

BER Bit Error Rate
BLER Block Error Rate
BSS Base Station Subsystem
CBSS Controlling BSS

CCCH Common Control Channel

CCPCH Common Control Physical Channel CCTrCH Coded Composite Transport Channel

CFN Connection Frame Number

C-ID Cell Identifier
CM Compressed Mode
CN Core Network

CPCH Common Packet Channel
CPICH Common Pilot Channel
CRNC Controlling RNC
DBSS Drift BSS

C-RNTI Cell Radio Network Temporary Identifier

CS Circuit Switched

CTFC Calculated Transport Format Combination DCH Dedicated Channel

DGPS Differential GPS DL Downlink

DPC Downlink Power Control

DPCCH Dedicated Physical Control Channel
DPCH Dedicated Physical Channel
DPDCH Dedicated Physical Data Channel
DRAC Dynamic Radio Access Control

DRNC Drift RNC DRNS Drift RNS

D-RNTI Drift Radio Network Temporary Identifier

DRX Discontinuous Reception
DSCH Downlink Shared Channel
Ec Energy in single Code

EDSCHPC Enhanced Downlink Shared Channel Power Control

EP Elementary Procedure FACH Forward Access Channel FDD Frequency Division Duplex

FN Frame Number FP Frame Protocol

GERAN GSM EDGE Radio Access Network

GA Geographical Area

GAI Geographical Area Identifier
GPS Global Positioning System
GRA GERAN Registration Area
GSM Global System Mobile

HSDPA High Speed Downlink Packet Access

HW Hardware

IB Information Block
ID Identity or Identifier
IE Information Element

IMSI International Mobile Subscriber Identity

IP Internet Protocol
IPDL Idle Period DownLink

ISCP Interference Signal Code Power

LAC Location Area Code
LCR Low Chip Rate (1.28 Mcps)
LCS Location Services

MAC Medium Access Control
MS Mobile Station
NAS Non Access Stratum
No Reference Noise

NRT Non Real Time

O&M Operation and Maintenance

P(-)CCPCH Primary CCPCH PCH Paging Channel

OTD Observed Time Difference

P(-)CPICH Primary CPICH

PCPCH Physical Common Packet Channel

PCS Personal Communication Services
PDSCH Physical Downlink Shared Channel

PDU Protocol Data Unit PhCH Physical Channel

PICH Paging Indication Channel Pos Position or Positioning

PRACH Physical Random Access Channel

PS Packet Switched
QE Quality Estimate
RAC Routing Area Code
RACH Random Access Channel
RAN Radio Access Network

RANAP Radio Access Network Application Part

RB Radio Bearer RL Radio Link

RLC Radio Link Control
RLS Radio Link Set
RM Rate Matching

RNC Radio Network Controller RNS Radio Network Subsystem

RNSAP Radio Network Subsystem Application Part
RNTI Radio Network Temporary Identifier

RRC Radio Resource Control

RT Real Time

RSCP Received Signal Code Power

SBSS Serving BSS

Rx Receive or Reception

Sat Satellite

SCCP Signalling Connection Control Part

S(-)CCPCH Secondary CCPCH
SCH Synchronisation Channel
SCTD Space Code Transmit Diversity

SDU Service Data Unit SF System Frame

SFN System Frame Number
SHCCH Shared Control Channel
SIR Signal-to-Interference Ratio
SNA Shared Network Area
SRB2 Signalling radio bearer 2

SRNC Serving RNC SRNS Serving RNS

S-RNTI Serving Radio Network Temporary Identifier

SSDT Site Selection Diversity Transmission STTD Space Time Transmit Diversity

TDD Time Division Duplex TF Transport Format

TFCI Transport Format Combination Indicator TFCS Transport Format Combination Set

TFS Transport Format Set

TGCFN Transmission Gap Connection Frame Number

ToAWE Time of Arrival Window Endpoint ToAWS Time of Arrival Window Startpoint

TPC Transmit Power Control
TrCH Transport Channel

TS Time Slot

TSG Technical Specification Group
TSTD Time Switched Transmit Diversity
TTI Transmission Time Interval

TX Transmit or Transmission

UARFCN UTRA Absolute Radio Frequency Channel Number

UDP User Datagram Protocol UC-ID UTRAN Cell Identifier

UE User Equipment

UL Uplink

UMTS Universal Mobile Telecommunications System

URA UTRAN Registration Area

U-RNTI UTRAN Radio Network Temporary Identifier

USCH Uplink Shared Channel

UTRA Universal Terrestrial Radio Access

UTRAN Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the DRNC/CRNC exactly and completely. The SRNC functional behaviour is left unspecified. The Physical Channel Reconfiguration procedure and Reset procedure are an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:
 - 1) Functionality which "shall" be executed

The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

2) Functionality which "shall, if supported" be executed

The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements for including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which-all current and future messages, and IEs or groups of related IEs, include ID and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

4.3 Source Signalling Address Handling

The sender of an RNSAP messages shall include the Source Signalling Address, i.e. the Signalling Address of the sending node.

4.4 Specification Notations

For the purposes of the present document, the following notations apply:

[FDD] This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.

- [TDD] This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD.
- [3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.
- [1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.
- [FDD ...] This tagging indicates that the enclosed text following the "[FDD " applies only to FDD.

 Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.
- [TDD ...] This tagging indicates that the enclosed text following the "[TDD " applies only to TDD including 3.84Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.
- [3.84Mcps TDD ...] This tagging indicates that the enclosed text following the "[3.84Mcps TDD " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.
- [1.28Mcps TDD ...] This tagging indicates that the enclosed text following the "[1.28Mcps TDD " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.
- Procedure When referring to an elementary procedure in the specification, the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.
- Message When referring to a message in the specification, the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.
- IE When referring to an information element (IE) in the specification, the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.
- Value of an IE When referring to the value of an information element (IE) in the specification, the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)" or "SSDT Active in the UE".

5 RNSAP Services

5.1 RNSAP Procedure Modules

The Iur interface RNSAP procedures are divided into four modules as follows:

- 1. RNSAP Basic Mobility Procedures;
- 2. RNSAP DCH Procedures;
- 3. RNSAP Common Transport Channel Procedures;

4. RNSAP Global Procedures.

The Basic Mobility Procedures module contains procedures used to handle the mobility within UTRAN, within GERAN and between UTRAN and GERAN.

The DCH Procedures module contains procedures that are used to handle DCHs, DSCHs, and USCHs between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH, DSCH, and USCH traffic between corresponding RNSs is not possible.

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams (excluding the DSCH and USCH) over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs/CBSSs.

5.2 Parallel Transactions

Unless explicitly indicated in the procedure specification, at any instance in time one protocol peer shall have a maximum of one ongoing RNSAP DCH procedure related to a certain UE.

6 Services Expected from Signalling Transport

The signalling transport shall provide two different service modes for the RNSAP.

- Connection oriented data transfer service. This service is supported by a signalling connection between two RNCs. It shall be possible to dynamically establish and release signalling connections based on the need. Each active UE shall have its own signalling connection. The signalling connection shall provide in sequence delivery of RNSAP messages. RNSAP shall be notified if the signalling connection breaks.
- 2. Connectionless data transfer service. RNSAP shall be notified in case a RNSAP message did not reach the intended peer RNSAP entity.

7 Functions of RNSAP

The RNSAP protocol provides the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;
- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;
- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;
- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS;
- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;
- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;
- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;
- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;

- GERAN Signalling Transfer. This function allows the SBSS and DBSS, the SRNC and DBSS or the SBSS and DRNC to pass information between the UE/MS and the SRNC/SBSS on an SRB2/CCCH controlled by the DBSS/DRNC;
- Paging. This function allows the SRNC/SBSS to page a UE in a URA/GRA or a cell in the DRNS;
- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS (excluding DSCH resources for FDD);
- Relocation Execution. This function allows the SRNC/SBSS to finalise a Relocation previously prepared via other interfaces:
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- DL Power Timeslot Correction [TDD]. This function enables the DRNS to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Measurements on Common Resources. This function allows an RNC/BSS to request from another RNC/BSS to initiate measurements on Common Resources. The function also allows the requested RNC/BSS to report the result of the measurements.
- Information Exchange. This function allows an RNC to request from another RNC the transfer of information. The function also allows the requested RNC to report the requested information.
- Resetting the Iur. This function is used to completely or partly reset the Iur interface.

The mapping between the above functions and RNSAP elementary procedures is shown in the Table 1.

Table 1: Mapping between functions and RNSAP elementary procedures

| Function | Elementary Procedure(s) |
|---------------------------------------|---|
| Radio Link Management | a) Radio Link Setup |
| | b) Radio Link Addition |
| | c) Radio Link Deletion |
| | d) Unsynchronised Radio Link Reconfiguration |
| | e) Synchronised Radio Link Reconfiguration |
| | Preparation |
| | f) Synchronised Radio Link Reconfiguration Commit |
| | g) Synchronised Radio Link Reconfiguration |
| | Cancellation |
| | h) Radio Link Pre-emption |
| | i) Radio Link Activation |
| | ij) Radio Link Parameter Update |
| Physical Channel Reconfiguration | Physical Channel Reconfiguration |
| Radio Link Supervision | a) Radio Link Failure |
| | b) Radio Link Restoration |
| Compressed Mode Control [FDD] | a) Radio Link Setup |
| | b) Radio Link Addition c) Compressed Mode Command |
| | d) Unsynchronised Radio Link Reconfiguration |
| | e) Synchronised Radio Link Reconfiguration |
| | Preparation |
| | f) Synchronised Radio Link Reconfiguration |
| | Commit |
| | g) Synchronised Radio Link Reconfiguration |
| NA | Cancellation |
| Measurements on Dedicated Resources | a) Dedicated Measurement Initiation |
| | b) Dedicated Measurement Reporting c) Dedicated Measurement Termination |
| | d) Dedicated Measurement Failure |
| DL Power Drifting Correction [FDD] | Downlink Power Control |
| DCH Rate Control | a) Radio Link Setup |
| | b) Radio Link Addition |
| | c) Unsynchronised Radio Link Reconfiguration |
| | d) Synchronised Radio Link Reconfiguration |
| | Preparation |
| CCCH Signalling Transfer | e) Radio Link Congestion a) Uplink Signalling Transfer |
| CCCH Signalling Transfer | b) Downlink Signalling Transfer |
| GERAN Signalling Transfer | a) GERAN Uplink Signalling Transfer |
| GETATA OIGHAINING TRANSICI | b) Downlink Signalling Transfer |
| Paging | Paging |
| Common Transport Channel Resources | a) Common Transport Channel Resources |
| Management | Initiation |
| | b) Common Transport Channel Resources |
| | Release |
| Relocation Execution | Relocation Commit |
| Reporting of General Error Situations | Error Indication |
| Measurements on Common Resources | a) Common Measurement Initiation b) Common Measurement Reporting |
| | c) Common Measurement Termination |
| | d) Common Measurement Failure |
| Information Exchange | a) Information Exchange Initiation |
| | b) Information Reporting |
| | c) Information Exchange Termination |
| | d) Information Exchange Failure |
| DL Power Timeslot Correction [TDD] | Downlink Power Timeslot Control |
| Reset | Reset |

7.1 RNSAP functions and elementary procedures for lur-g.

The functions and RNSAP elementary procedures, which are applicable on the Iur-g interface are shown in the Table 1A.

Table 1A: RNSAP elementary procedures applicable on the lur-g interface

| Function | Elementar y Procedure(s) |
|---------------------------------------|-------------------------------------|
| GERAN Signalling Transfer | a) GERAN Uplink Signalling Transfer |
| | b) Downlink Signalling Transfer |
| Paging | Paging |
| Relocation Execution | Relocation Commit |
| Reporting of General Error Situations | Error Indication |
| Measurements on Common Resources | a) Common Measurement Initiation |
| | b) Common Measurement Reporting |
| | c) Common Measurement Termination |
| | d) Common Measurement Failure |
| Information Exchange | a) Information Exchange Initiation |
| | b) Information Reporting |
| | c) Information Exchange Termination |
| | d) Information Exchange Failure |

Note: In the connection with the functions releated to the GERAN and UTRAN, the term RNC shall refer to RNC/BSS.

8 RNSAP Procedures

8.1 Elementary Procedures

In the following tables, all EPs are divided into Class 1 and Class 2 EPs.

Table 2: Class 1 Elementary Procedures

| Procedure Response message Response message Radio Link Setup RADIO LINK SETUP RESPONSE RADIO LINK SETUP FAILURE Radio Link Addition RADIO LINK ADDITION REQUEST RADIO LINK RESPONSE Radio Link Deletion RADIO LINK DELETION REQUEST RADIO LINK RESPONSE Radio Link Deletion RADIO LINK DELETION REQUEST RADIO LINK RESPONSE Synchronised Radio Link ReconFiguration Preparation RADIO LINK RECONFIGURATION RESPONSE RECONFIGURATION READY Unsynchronised Radio Link Reconfiguration Preparation RADIO LINK RECONFIGURATION RESPONSE RADIO LINK RECONFIGURATION RESPONSE Physical Channel Reconfiguration Physical Channel Reconfiguration Reconfiguration PHYSICAL CHANNEL RECONFIGURATION RESPONSE RECONFIGURATION RECONFIGURATION RECONFIGURATION RECONFIGURATION RESPONSE Dedicated Measurement Initiation DEDICATED MEASUREMENT INITIATION REQUEST MEASUREMENT INITIATION REQUEST MEASUREMENT INITIATION FAILURE Common Transport Channel Resources Initialisation RESOURCES RESOURCES RESOURCES RESOURCES RESOURCES INITIATION REQUEST RESPONSE FAILURE Common Measurement Initiation INITIATION REQUEST MEASUREMENT INITIATION RESOURCES RESPONSE FAILURE Information Exchange Initiation INFORMATION RECOURST | Elementary | Initiating Message | Successful Outcome | Unsuccessful Outcome |
|--|-----------------------|--------------------|--------------------|----------------------|
| Radio Link Addition RADITION REQUEST Rabio Link Addition RESPONSE Radio Link ADDITION REQUEST Radio Link Deletion RESPONSE RADIO LINK Deletion RESPONSE RADIO LINK Deletion RESPONSE RADIO LINK DELETION REQUEST RESPONSE Synchronised Radio Link Reconfiguration Preparation Unsynchronised Radio Link Reconfiguration Preparation Reconfiguration Physical Channel Reconfiguration Physical Channel Reconfiguration Physical Channel Reconfiguration REQUEST Dedicated Measurement Initiation Dedicated Resources Resources Resources Resources Resources Resources Initialisation Resurement Initiation Interpolation Resurement Initiation Resurement Ini | | | | |
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| Radio Link Deletion RADIO LINK Deletion DELETION REQUEST Synchronised Radio Link Reconfiguration Preparation Unsynchronised Radio Link Reconfiguration Preparation Unsynchronised Radio Link Reconfiguration Preparation Physical Channel Reconfiguration Reconfiguration Reconfiguration Reconfiguration Physical Channel Reconfiguration Request Reconfiguration Request Dedicated Measurement Initiation Dedicated Measurement Initiation Common Transport Channel Resources Resources Initialisation Request Common Measurement Initiation Initiation Request Common Common Common Request Common Resulest Resources Resou | | | | |
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| Deletion | | | | |
| Synchronised Radio Link Reconfiguration Preparation Unsynchronised Radio Link Reconfiguration Preparation Unsynchronised Radio Link Reconfiguration Preparation Unsynchronised Radio Link Reconfiguration R | | | | |
| Synchronised Radio Link Reconfiguration PREPARE RADIO LINK RECONFIGURATION PAILURE RADIO LINK RECONFIGURATION REQUEST RESPONSE RADIO LINK RECONFIGURATION REQUEST PHYSICAL CHANNEL RECONFIGURATION REQUEST RECONFIGURATION RECONFIGURATION REQUEST RECONFIGURATION RECONFIGURATION REQUEST RECONFIGURATION RECONFIGURATION REQUEST DEDICATED DEDICATED DEDICATED MEASUREMENT INITIATION REQUEST MEASUREMENT INITIATION RESPONSE | Deletion | DELETION REQUEST | | |
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| Initiation INITIATION REQUEST INITIATION FAILURE RESPONSE | | | | |
| RESPONSE | | | | |
| | IIIIIalion | INTIATION NEQUEST | _ | I AILOILE |
| | Reset | RESET REQUEST | | |

Table 3: Class 2 Elementary Procedures

| Elementary Procedure | Initiating Message |
|--|---|
| Uplink Signalling Transfer | UPLINK SIGNALLING TRANSFER |
| | INDICATION |
| GERAN Uplink Signalling Transfer | GERAN UPLINK SIGNALLING |
| | TRANSFER INDICATION |
| Downlink Signalling Transfer | DOWNLINK SIGNALLING |
| | TRANSFER REQUEST |
| Relocation Commit | RELOCATION COMMIT |
| Paging | PAGING REQUEST |
| Synchronised Radio Link | RADIO LINK RECONFIGURATION |
| Reconfiguration Commit | COMMIT |
| Synchronised Radio Link | RADIO LINK RECONFIGURATION |
| Reconfiguration Cancellation | CANCEL |
| Radio Link Failure | RADIO LINK FAILURE INDICATION |
| Radio Link Restoration | RADIO LINK RESTORE INDICATION |
| Dedicated Measurement Reporting | DEDICATED MEASUREMENT |
| | REPORT |
| Dedicated Measurement | DEDICATED MEASUREMENT |
| Termination | TERMINATION REQUEST |
| Dedicated Measurement Failure | DEDICATED MEASUREMENT |
| | FAILURE INDICATION |
| Downlink Power Control [FDD] | DL POWER CONTROL REQUEST |
| Compressed Mode Command | COMPRESSED MODE COMMAND |
| [FDD] | |
| Common Transport Channel | COMMON TRANSPORT CHANNEL |
| Resources Release | RESOURCES RELEASE REQUEST |
| Error Indication | ERROR INDICATION |
| Downlink Power Timeslot Control | DL POWER TIMESLOT CONTROL |
| [TDD] | REQUEST |
| Radio Link Pre-emption | RADIO LINK PREEMPTION |
| | REQUIRED INDICATION |
| Radio Link Congestion | RADIO LINK CONGESTION |
| | INDICATION |
| Common Measurement Reporting | COMMON MEASUREMENT |
| | REPORT |
| Common Measurement | COMMON MEASUREMENT |
| Termination | TERMINATION REQUEST |
| Common Measurement Failure | COMMON MEASUREMENT |
| Information Poporting | FAILURE INDICATION INFORMATION REPORT |
| Information Reporting Information Exchange Termination | INFORMATION REPORT INFORMATION EXCHANGE |
| inionnation exchange remination | TERMINATION REQUEST |
| Information Exchange Failure | INFORMATION EXCHANGE |
| Information Exchange Failure | FAILURE INDICATION |
| Radio Link Parameter Update | RADIO LINK PARAMETER UPDATE |
| Tadio Enile i diameter opuate | INDICATION |

8.2 Basic Mobility Procedures

8.2.1 Uplink Signalling Transfer

8.2.1.1 General

The procedure is used by the DRNC to forward a Uu message received on the CCCH to the SRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1.2 Successful Operation

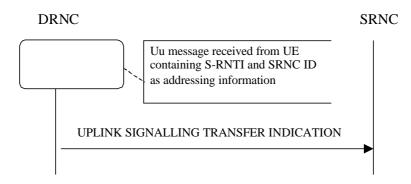


Figure 1: Uplink Signalling Transfer procedure, Successful Operation

When the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, DRNC shall send the UPLINK SIGNALLING TRANSFER INDICATION message to the SRNC identified by the SRNC-ID received from the UE.

If at least one URA Identity is being broadcast in the cell where the Uu message was received (the accessed cell), the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the accessed cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA where the Uu message was received in the *URA Information* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

The DRNC shall include in the message the C-RNTI that it allocates to identify the UE in the radio interface in the accessed cell. If there is no valid C-RNTI for the UE in the accessed cell-, the DRNS shall allocate a new C-RNTI for the UE. If the DRNS allocates a new C-RNTI it shall also release any C-RNTI previously allocated for the UE.

If the DRNS has any RACH, [FDD - CPCH], and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and/or transport bearer are different from those in the old cell, then the DRNS shall not include the *Common Transport Channel Resources Initialisation* **Not Required** IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition the DRNS shall release these RACH, [FDD - CPCH,] and/or FACH resources in old cell.

If the DRNS has any RACH, [FDD - CPCH], and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and transport bearer are the same as in the old cell, there is no need for Common Transport Channel Resources Initialisation to be initiated. In that case, DRNC may include the *Common Transport Channel Resources Initialisation Procedured* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition, the DRNS shall move these RACH, [FDD - CPCH,] and/or FACH resources to the new cell. If no Common Transfer Channel Resources Initialisation procedure is executed, the currently applicable Mac SDU sizes, flow control settings (including credits) and transport bearer shall continue to be used while the UE is in the new cell.

If no context exists for this UE in the DRNC, the DRNC shall create a UE Context for this UE, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DRNC is connected to in the UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE.

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, in which the Uu message was received in the UPLINK SIGNALLING TRANSFER INDICATION message. If the DRNC includes the *Cell GA Additional Shapes* IE in the UPLINK SIGNALLING TRANSFER INDICATION message, it shall also include the *Cell GAI* IE.

[FDD - The DRNC shall include the *DPC Mode Change Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports DPC mode change.]

[FDD- The DRNC shall include the *Flexible Hard Split Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports TFCI flexible hard split mode.]

The DRNC shall include [FDD - the *Cell Capability Container FDD* IE] [3.84Mcps TDD - the *Cell Capability Container TDD* IE] [1.28Mcps TDD - the *Cell Capability Container TDD LCR* IE] in the UPLINK SIGNALLING

TRANSFER INDICATION message if the accessed cell supports any functionalities listed in [FDD - 9.2.2.D] [3.84Mcps TDD - 9.2.3.1a] [1.28Mcps TDD - 9.2.3.1b].

If available, the DRNC shall include the SNA Information IE for the concerned cell.

When receiving the *SNA Information* IE, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

8.2.1.3 Abnormal Conditions

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8.2.1A GERAN Uplink Signalling_Transfer

8.2.1A.1 General

The procedure is used by the DBSS to forward an Um message received on the SRB2 to the SBSS/SRNC. The procedure is also used by the DRNC to forward a Uu message received on the CCCH to the SBSS.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1A.2 Successful Operation

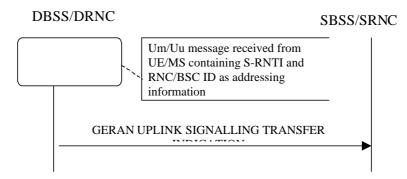


Figure 1A: GERAN Uplink Signalling Transfer procedure, Successful Operation

When the DBSS receives an Um message on the SRB2 in which the MS addressing information is G-RNTI, i.e. S-RNTI and BSC-ID, DBSS shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS/SRNC identified by the BSC-ID received from the MS.

Alternatively, when the DRNC receives an Uu message on the CCCH in which the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, and in which the SRNC-ID points to a GERAN BSS, the DRNC shall send the GERAN UPLINK SIGNALLING TRANSFER INDICATION message to the SBSS identified by SRNC-ID received from the UE.

If at least one GRA/URA Identity is being broadcast in the cell where the Um/Uu message was received (the accessed cell), the DBSS/DRNC shall include a GRA/URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple GRA/URA Identities are being broadcast in the accessed cell, and the RNC/BSS Identity of all other RNC/BSSs that are having at least one cell within the GRA/URA where the Um/Uu message was received in the *URA Information* IE in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message.

If no context exists for this UE/MS in the DBSS/DRNC, the DBSS/DRNC shall create a UE Context for this UE/MS, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DBSS/DRNC is connected to in the GERAN UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE/MS.

8.2.1A.3 Abnormal Conditions

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8.2.2 Downlink Signalling Transfer

8.2.2.1 General

The procedure is used by the SRNC to request to the DRNC the transfer of a Uu message on the CCCH in a cell. When used, the procedure is in response to a received Uplink Signalling Transfer procedure.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.2.1.1 Downlink Signalling Transfer for lur-g

The procedure is used by the SRNC/SBSS to request to the DBSS the transfer of an Um message on the SRB2 in a cell.

The procedure is used by the SBSS to request to the DRNC the transfer of a Uu message on the CCCH in a cell.

8.2.2.2 Successful Operation



Figure 2: Downlink Signalling Transfer procedure, Successful Operation

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC to the DRNC.

The message contains the Cell Identifier (C-ID) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE identified by the *D-RNTI* IE.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has no dedicated resources (DCH, [TDD - USCH,] and/or DSCH) allocated for the UE, the DRNS shall release the D-RNTI, the UE Context and any RACH, [FDD - CPCH,] and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has dedicated resources allocated for the UE, the DRNS shall only release any RACH, [FDD - CPCH,] and FACH resources and any C-RNTI allocated to the UE Context upon receipt of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

8.2.2.2.1 Successful Operation for lur-g

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC/SBSS to the DBSS or by the SBSS to the DRNC.

The message contains the Cell Identifier (C-*ID*) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

Upon receipt of the message, the DBSS shall send the L3 Information on the SRB2 in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

Upon receipt of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-ID* IE to the UE/MS identified by the *D-RNTI* IE.

8.2.2.3 Abnormal Conditions

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

8.2.2.3.1 Abnormal Conditions for lur-g

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC/DBSS than the cell identified by the *C-ID* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

If the DRNC receives from the SBSS the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to "not Release D-RNTI", the DRNC shall ignore this IE and release the D-RNTI.

If the DBSS receives from the SBSS/SRNC the DOWNLINK SIGNALLING TRANSFER REQUEST message, in which the *D-RNTI Release Indication* IE is set to "not Release D-RNTI", the DBSS shall ignore this IE and release the D-RNTI.

8.2.3 Relocation Commit

8.2.3.1 General

The Relocation Commit procedure is used by source RNC to execute the Relocation. This procedure supports the Relocation procedures described in [2].

This procedure shall use the signalling bearer mode specified below.

8.2.3.2 Successful Operation



Figure 3: Relocation Commit procedure, Successful Operation

The source RNC sends the RELOCATION COMMIT message to the target RNC to request the target RNC to proceed with the Relocation. When the UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE Context in the DRNC.

Upon receipt of the RELOCATION COMMIT message from the source RNC the target RNC finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC shall use this information when finalising the Relocation.

8.2.3.2.1 Successful Operation for lur-g

The source RNC/BSS sends the RELOCATION COMMIT message to the target RNC/BSS to request the target RNC/BSS to proceed with the Relocation.

The message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE/MS context in the DBSS.

Upon receipt of the RELOCATION COMMIT message from the source RNC/BSS, the target RNC/BSS finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC/BSS shall use this information when finalising the Relocation.

8.2.3.3 Abnormal Conditions

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8.2.4 Paging

8.2.4.1 General

This procedure is used by the SRNC to indicate to a CRNC that a UE shall be paged in a cell or URA that is under the control of the CRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.4.2 Successful Operation



Figure 4: Paging procedure, Successful Operation

The procedure is initiated with a PAGING REQUEST message sent from the SRNC to the CRNC.

If the message contains the *C-ID* IE, the CRNC shall page in the indicated cell. Alternatively, if the message contains the *URA-ID* IE, the CRNC shall page in all cells that it controls in the indicated URA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CRNC shall calculate the Paging Occasions from the *IMSI* IE and the *DRX Cycle Length Coefficient* IE according to specification in ref. [15] and apply transmission on PICH and PCH accordingly.

8.2.4.2.1 Successful Operation for lur-g

The procedure is initiated with a PAGING REQUEST message sent from the SBSS to the CRNC/CBSS or from the SRNC to the CBSS.

If the message contains the *URA-ID* IE, the CRNC/CBSS shall page in all cells that it controls in the indicated URA/GRA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC/CBSS shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CBSS shall calculate the Paging Occasions from the *IMSI* IE and the *GERAN DRX Cycle Length Coefficient* IE according to specification in ref. [36] and apply transmission on PCCCH or PACCH accordingly.

8.2.4.3 Abnormal Conditions

8.2.4.3.1 Abnormal Conditions for lur-g

If the DRNC receives a PAGING REQUEST message from the SBSS, which contains the *C-ID* IE, the message shall be ignored.

If the DBSS receives a PAGING REQUEST message from the SBSS/SRNC, which contains the *C-ID* IE, the message shall be ignored.

8.3 DCH Procedures

8.3.1 Radio Link Setup

8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

8.3.1.2 Successful Operation

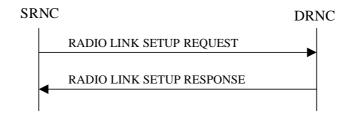


Figure 5: Radio Link Setup procedure: Successful Operation

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s). The Radio Link Setup procedure is initiated with this RADIO LINK SETUP REQUEST message sent from the SRNC to the DRNC.

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request for a time period not to exceed the value of the *Allowed Queuing Time* IE before starting to execute the request.

Transport Channels Handling:

DCH(s):

[TDD - If the *DCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DCHs according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs.

If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.

[TDD - If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]

[FDD - For each DCH which do not belong to a set of co-ordinated DCHs-, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]

For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD - If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the DCH FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Start-Ppoint in the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window End-Ppoint in the user plane for the DCH or the set of co-ordinated DCHs.

The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise between different frames of the data frames of the DCHs in the downlink on the radio interface in congestion situations once the new RL(s) have been activated.

The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.

If the *DCH Information* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

- If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the Guaranteed Rate in the uplink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
- If the Guaranteed Rate Information IE includes the Guaranteed DL Rate IE, the DRNS shall apply the Guaranteed Rate in the downlink of this DCH. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to only reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the DCH Specific Info IE in the DCH Information IE does not include the Guaranteed DL Rate IE, the DRNS shall not limit the user rate of the downlink of the DCH.

DSCH(s):

If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs [FDD - on the RL indicated by the PDSCH RL ID IE]. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *DSCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DSCH. In addition, the DRNC shall send a valid set of *DSCH Scheduling Priority* IE and *MAC-c/sh SDU Length* IE parameters to the SRNC in the RADIO LINK SETUP RESPONSE message. If the *PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.

The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK SETUP RESPONSE message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].

[TDD - USCH(s)]:

[TDD - The DRNS shall use the list of RB Identities in the *RB Info* IE in the *USCH information* IE to map each *RB Identity* IE to the corresponding USCH. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *USCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the USCH.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall establish the requested USCHs, and the DRNC shall provide the *USCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD - CCTrCH Handling]:

[TDD - If the *UL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information LCR* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *TPC CCTrCH List* IE is present in the RADIO LINK SETUP REQUEST message, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

HS-DSCH(s):

If the RADIO LINK SETUP REQUEST message includes *HS-DSCH Information* IE and if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNS shall use this information to configure the indicated HS-DSCH resources on this radio link. If the *HS-PDSCH RL ID* IE does not indicate a radio link in the DRNS, then the DRNS shall store the configuration of the HS-DSCH according to the received *HS-DSCH Information* IE. The DRNS shall store the latest HS-DSCH configuration until the UE context is deleted.

In addition, if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

If the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNS shall also include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer(s) for the HS-DSCH MAC-d flows on this radio link.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.

If the *HS-DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related MAC-d flows.

[FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK SETUP RESPONSE message for each MAC-d flow, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].

[FDD - If RADIO LINK SETUP REQUEST message includes the *HS-DSCH Information* IE and the *PDSCH RL ID* IE indicates a Radio Link in the DRNS, then the DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions.

If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs.

Physical Channels Handling:

[FDD - Compressed Mode]:

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or the last Radio Link is deleted.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD- If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[FDD - DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number I*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[FDD – Phase Reference Handling]:

[FDD – If the RADIO LINK SETUP REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for DCH or DSCH.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that -dedicated pilots may be used for channel estimation for HS-DSCH.]

[FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK SETUP RESPONSE message.]

General:

[FDD - If the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

[FDD - If the received *Limited Power Increase* IE is set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]

[FDD - If the RADIO LINK SETUP REQUEST message includes *Split Type IE*, then the DRNS shall apply this information to the new configuration of TFCI.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Length of TFCI2* IE, the DRNS shall apply this information to the length of TFCI(field 2).]

[TDD - If the RADIO LINK SETUP REQUEST message includes the *Maximum Number of DL Physical Channels per Timeslot* IE the DRNC shall take this value into account when allocating physical resources, otherwise the DRNC can assume that this UE capability is consistent with the other signalled UE capabilities.]

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message includes the *Support for 8PSK* IE within the *DL Physical Channel Information* IE *or UL Physical Channel Information* IE, the DRNC shall take this into account in the specified direction when allocating physical resources, otherwise the DRNC can assume that this UE does not support 8PSK resource allocation.]

Radio Link Handling:

Diversity Combination Control:

[FDD - The *Diversity Control Field* IE indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not.

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

When an RL is to be combined, the DRNS shall choose which RL(s) to combine it with.]

[FDD - In the RADIO LINK SETUP RESPONSE message, the DRNC shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.]

- [FDD In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE
 message or for the first RL in the RADIO LINK SETUP RESPONSE message, the DRNC shall include
 in the DCH Information Response IE in the RADIO LINK SETUP RESPONSE message the Binding ID
 IE and Transport Layer Address IE for the transport bearer to be established for each DCH of this RL.]
- [FDD Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined.]

[TDD - The DRNC shall always include in the RADIO LINK SETUP RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs requiring a new transport bearer the *Binding ID* IE and the *Transport Layer Address* IE shall be included in the RADIO LINK SETUP RESPONSE message for only one of the DCHs in the set of co-ordinated DCHs.

[FDD-Transmit Diversity]:

[FDD - If the cell in which the RL is being set up is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK SETUP RESPONSE message indicating the configured Closed loop timing adjustment mode of the cell.]

[FDD - When the *Diversity Mode* IE is set to "STTD", "Closed loop mode1", or "Closed loop mode2", the DRNC shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indicator* IE].

DL Power Control:

[FDD - If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constrains when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL except during compressed mode, when the dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If both the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not included in the RADIO LINK SETUP REQUEST message, then DRNC shall determine the initial Uplink SIR Target and include it in the *Uplink SIR Target* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD - The DRNC shall use the *Uplink SIR Target CCTrCH* IEs in the RADIO LINK SETUP RESPONSE message to indicate for any UL CCTrCH an Uplink SIR Target value in case this is deviating from the value included in the *Uplink SIR Target* IE specified for the Radio Link. If in any [3.84Mcps TDD - *UL CCTrCH Information IE*] [1.28Mcps TDD - *UL CCTrCH Information LCR* IE] the *Uplink SIR Target CCTrCH* IE is not included, the value of the *Uplink SIR Target* IE shall apply to the respective UL CCTrCH.]

[FDD - If the *Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL TX Power. If the *Enhanced Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL Tx Power.]

[TDD - If the *Primary CCPCH RSCP* IE [3.84Mcps TDD -and/or the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - and/or the *DL Time Slot ISCP Info LCR* IE] are present, the DRNC should use the indicated values when deciding the Initial DL TX Power. for the Radio Link. The DRNS shall use the indicated DL Timeslot ISCP when determining the initial DL power per timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.]

[3.84 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[1.28McpsTDD - If the *TSTD Support Indicator* IE is present, the DRNS shall apply this information when configuring the transmit diversity for the new radio link.]

[FDD - The DRNS shall start any DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code of a RL until UL synchronisation is achieved on the Uu interface for the concerned RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.15).]

[TDD - The DRNS shall start any DL transmission using the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved on the Uu interface for the concerned RL. No inner loop power control shall be performed during this period. Then after UL synchronisation, the DL power shall vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[FDD - If the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life-time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the DRNS shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.15, using the *DL Power Balancing Information* IE. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing i.e. *P_{init}* shall be set to the power level indicated by the *Initial DL TX Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE.]

[FDD - If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

Neighbouring Cell Handling:

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Mode1 Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE, the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE or the Neighbouring TDD Cell Information LCR IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE for the set to "Case1", the DRNC shall include the Time Slot For SCH IE in the Neighbouring TDD Cell Information IE. If the Neighbouring TDD Cell Information IE includes Sync Case IE set to "Case2", the DRNC shall include the SCH Time Slot IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- If the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE
- [FDD- The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports *Flexible Hard Split* mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalityies listed in 9.22.D, 9.23.1a and 9.2.3.1b.

- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise the *Restriction State lindicator* IE may be absent. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Restriction State lindicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.
- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

If there are GSM neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Neighbouring GSM Cell Information* IE for each of the GSM neighbouring cells. If available the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information* IE. If available the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK SETUP RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK SETUP RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK SETUP RESPONSE message.]

General:

If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity IE and the S-Field Length IE, the DRNS shall activate SSDT, if supported, using the SSDT Cell Identity IE, S-Field Length IE and SSDT Cell Identity Length IE.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Qth Parameter* IE in addition to the *SSDT Cell Identity* IE, the DRNS shall use the *Qth Parameter* IE, if Qth signalling is supported, when SSDT is activated in the concerned new RL.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity for EDSCHPC IE, the DRNS shall activate enhanced DSCH power control, if supported, using the SSDT Cell Identity for EDSCHPC IE and SSDT Cell Identity Length IE as well as Enhanced DSCH PC IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both SSDT Cell Identity IE and SSDT Cell Identity for EDSCHPC IE, then the DRNS shall ignore the SSDT Cell Identity for EDSCHPC

IE. If the enhanced DSCH power control is activated and the *TFCI PC Support Indicator* IE is set to "TFCI PC Mode 2 Supported", the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

[FDD - If the *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *D-RNTI* IE, the *CN PS Domain Identifier* IE and/or the *CN CS Domain Identifier* IE for the CN domains (using LAC and RAC of the current cell) to which the DRNC is connected.

[FDD - If the *D-RNTI* IE was included the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE.]

[TDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *UARFCN* IE, the *Cell Parameter ID* IE and the *SCTD Indicator* IE.]

[3.84Mcps TDD - If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Sync Case* IE and if the *Sync Case* IE is set to "Case 2", the DRNC shall also include the *SCH Time Slot* IE in the RADIO LINK SETUP RESPONSE message. If the included *Sync Case* IE is set to "Case1", the DRNC shall also include the *Time Slot For SCH* IE]

[3.84Mcps TDD - The DRNC shall include the Secondary CCPCH Info TDD IE in the RADIO LINK SETUP RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the Secondary CCPCH Info TDD IE in the RADIO LINK SETUP RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the *URA Information* IE within the RADIO LINK SETUP RESPONSE message URA Innformation for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEsof all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK SETUP RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK SETUP RESPONSE message, it shall also include the *Cell GAI* IE

If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC

shall include in the RADIO LINK SETUP RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the *Permanent NAS UE Identity* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK SETUP REQUEST message includes the *Permanent NAS UE Identity* IE and a *C-ID* IE corresponding to a cell reserved for operator use, the DRNS shall use this information to determine whether it can set up a Radio Link on this cell or not for the considered UE Context.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD - Radio Link Set Handling]:

[FDD - The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The DRNS shall use the *First RLS Indicator* IE to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context.]

[FDD - The UL oout-of-sync algorithm defined in ref. [10] shall, for each of the established RL Set(s), use the maximum value of the parameters $N_{OUTSYNC_IND}$ and $T_{RLFAILURE}$ that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_{INSYNC_IND} that are configured in the cells supporting the radio links of the RL Set.]

Response Message:

Upon receipt of the RADIO LINK SETUP REQUEST message, the DRNS allocates the requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH, for each set of co-ordinated DCHs and for each DSCH [TDD - and USCH]. This information shall be sent to the SRNC in the RADIO LINK SETUP RESPONSE message when all the RLs have been successfully established.

After sending the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message the DRNS shall:

- [FDD start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerned RL on the Uu interface;
- if the Delayed Activation IE indicates "CFN":

- [FDD start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
- [TDD start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

8.3.1.3 Unsuccessful Operation

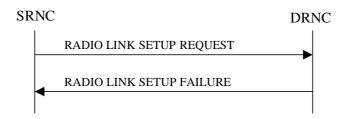


Figure 6: Radio Link Setup procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the DRNC shall respond with a RADIO LINK SETUP FAILURE message. The DRNC shall include in the RADIO LINK SETUP FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the RL identified by the *PDSCH RL ID* IE is a radio link in the DRNS and this RL is successfully established, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall reject the procedure and send the RADIO LINK SETUP FAILURE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- [FDD UL Scrambling Code Already in Use];
- DL Radio Resources not Available:
- UL Radio Resources not Available;
- [FDD Combining Resources not available];
- Combining not Supported
- Requested Configuration not Supported;
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Number of DL codes not supported;
- Number of UL codes not supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;

- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];
- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- Not enough User Plane Processing Resources.

8.3.1.4 Abnormal Conditions

If the DRNC receives either an S-RNTI or a D-RNTI which already has RL(s) established the DRNC shall send the RADIO LINK SETUP FAILURE message to the SRNC, indicating the reason for failure.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes both the *Initial DL TX Power* IE and the *Primary CPICH Ec/No* IE or does not include either of these IEs, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Radio Link Setup procedure and shall respond with a RADIO LINK SETUP FAILURE message.

[FDD - If only the *Initial DL TX Power* IE or the *Uplink SIR Target* IE is included in the RADIO LINK SETUP REQUEST message, then DRNC shall reject the Radio Link Setup procedure and shall respond with the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes *TFCI Signalling Mode* IE set to "Split", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Length of TFC12* IE but the *Split type* IE is set to "Logical", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Split Type* IE set to the value "Hard" and the *Length Of TFCI2* IE set to the value "1", "2", "5", "8", "9" or "10", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes the *Length of TFCI*2 IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Setup procedure and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

8.3.2 Radio Link Addition

8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerned UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

[FDD - The Radio Link Addition procedure serves to establish one or more new Radio Links which do not contain the DSCH. If the DSCH shall be moved into a new Radio Link, the Radio Link reconfiguration procedure shall be applied.]

[TDD - The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

8.3.2.2 Successful Operation

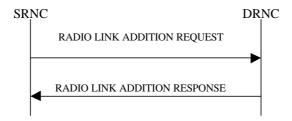


Figure 7: Radio Link Addition procedure: Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Transport Channel Handling:

[TDD - The DRNC shall include the *UL/DL DPCH Information* IE within the *UL/DL CCTrCH Information* IE for each CCTrCH that requires DPCHs.]

DSCH:

[TDD - If the radio link to be added includes a DSCH, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *DSCH Information Response* IE for each DSCH.]

[TDD - USCH:]

[TDD - If the radio link to be added includes any USCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a *USCH Information Response* IE for each USCH.]

Physical Channels Handling:

[FDD-Compressed Mode]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated (all ongoing) Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* IE refers to the latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]
- FDD If the *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]
- [FDD If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

[FDD-DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number I*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]

[TDD - CCTrCH Handling]:

[TDD - If the *UL CCTrCH Information* IE is present, the DRNS shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD - If the *DL CCTrCH Information* IE is present, the DRNS shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[FDD – Phase Reference Handling]:

[FDD – If Primary CPICH is not to be used as a Phase Reference for this Radio Link, the DRNC shall include the *Primary CPICH Usage For Channel Estimation* IE set to the value "Primary CPICH shall not be used" in the RADIO LINK ADDITION RESPONSE message.]

General:

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

Radio Link Handling:

Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the DRNS shall combine the new RL with existing RL(s) or not on the Iur.

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When a new RL is to be combined the DRNS shall choose which RL(s) to combine it with.
- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case the DRNC shall include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message.

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the DRNC shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined.

[TDD - The DRNC shall always include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH of the RL.]

In the case of a set of co-ordinated DCHs, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for only one of the DCHs in the set of co-ordinated DCHs.

If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) when starting to utilise a new Radio Link, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

[FDD-Transmit Diversity]:

The DRNS shall activate any feedback mode diversity according to the received settings.

[FDD - If the cell in which the RL is being added is capable to provide Close loop Tx diversity, the DRNC shall indicate the Closed loop timing adjustment mode of the cell by including the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD - When the *Transmit Diversity Indicator* IE is present the DRNS shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE using the diversity mode of the existing Radio Link(s).]

DL Power Control:

[FDD - If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE measured by the UE are included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this RL. If the *Primary CPICH*

Ec/No IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]

[TDD - If the *Primary CCPCH RSCP* IE [3.84Mcps TDD - and/or the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - and/or the *DL Time Slot ISCP Info LCR* IE] are included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use them in the calculation of the Initial DL TX Power. If the *Primary CCPCH RSCP* IE [3.84Mcps TDD - and *DL Time Slot ISCP Info IE*] [1.28Mcps TDD - and *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [10] subclause 5.2.1.2) and the power control procedure (see 8.3.7)].

[TDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[3.84 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate *Minimum DL TX Power* IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - The DL TX power upper and lower limit is configured in the following way: The DRNC shall include the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK ADDITION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the lifetime of the RL. If the *DPC Mode* IE is not present in the RADIO LINK ADDITION REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

UL Power Control:

The DRNC shall also provide the configured UL Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

The DRNC shall provide the configured *Maximum DL TX Power* IE and *Minimum DL TX Power* IE for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL [FDD - except during compressed mode, when the *dP_{curr}*, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.15. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power

balancing, i.e. P_{init} shall be set to the power level which is calculated based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE (if received), or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing RLs.]

[FDD - If activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

Neighbouring Cell Handling:

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Model Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE and the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE. or the Neighbouring TDD Cell Information LCR IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE set to "Case1", the DRNC shall include the Time SlotFor SCH IE in the Neighbouring TDD Cell Information IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE set to "Case2", the DRNC shall include the SCH Time Slot IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK ADDITION RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- [FDD The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE if this information is available.]
- [FDD The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports Flexible Hard Split mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalityies listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.
- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise *Restriction State Lindicator* IE may be absent. The DRNC shall include the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.
- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

If there are GSM neighbouring cells to the cell(s) in which a radio link is established, the DRNC shall include the *Neighbouring GSM Cell Information* IE in the RADIO LINK ADDITION RESPONSE message for each of the GSM neighbouring cells. If available the DRNC shall include the *Cell Individual Offset* IE, and if the *Cell Individual Offset* IE alone cannot represent the value of the offset, the DRNC shall also include the *Extended GSM Cell Individual Offset* IE in the *Neighbouring GSM Cell Information IE*. If available the DRNC shall also include the *Coverage Indicator* IE, *Antenna Co-location Indicator* IE and *HCS Prio* IE in the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

When receiving the *SNA Information* IE in the RADIO LINK ADDITION RESPONSE message, the SRNC should use it to restrict cell access based on SNA information. See also [40] for a broader description of the SNA access control.

If there are GERAN neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *GERAN Cell Capability* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN cells.

If there are GERAN Iu-mode neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include, if available, the *GERAN Classmark* IE in the *Neighbouring GSM Cell Information* IE that is included in the RADIO LINK ADDITION RESPONSE message for each of the GERAN Iu-mode neighbouring cells. Ref. [39] defines when the transmission of the *GERAN Classmark* IE will be required at the initiation of the Relocation Preparation procedure.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK ADDITION RESPONSE message.]

General:

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE, the DRNS shall, if supported, activate SSDT for the concerned new RL using the indicated SSDT Cell Identity.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Qth Parameter* IE in addition to the *SSDT Cell Identity* IE, the DRNS shall use the *Qth Parameter* IE, if Qth signalling is supported, when SSDT is activated in the concerned new RL.]

Depending on local configuration in the DRNS, the DRNC may include in the RADIO LINK ADDITION RESPONSE message the *UTRAN Access Point Position* IE and the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE. If the DRNC includes the *Cell GA Additional Shapes* IE in the RADIO LINK ADDITION RESPONSE message, it shall also include the *Cell GAI* IE.

For each Radio Link established in a cell in which at least one URA Identity is being broadcast, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message a URA Information for this cell including the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the *RNC-ID* IEs of all other RNCs that have at least one cell within the URA identified by the *URA ID* IE.

[FDD - If the UE has been allocated one or several DCH controlled by DRAC and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link established in a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

[3.84Mcps TDD - The DRNC shall include the Secondary CCPCH Info TDD IE in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the Secondary CCPCH Info TDD IE in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[1.28 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the *Secondary CCPCH Info TDD LCR* IE in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

If the *Permanent NAS UE Identity* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can add the Radio Link on this cell or not.

If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK ADDITION RESPONSE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]

The DRNS shall start receiving on the new RL(s) after the RLs are successfully established.

[FDD-Radio Link Set Handling]:

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign to the RL a unique value for the *RL Set ID* IE which uniquely identifies the RL as an RL Set within the UE Context.]

[FDD - For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS shall assign to each RL the same value for the *RL Set ID* IE which uniquely identifies these RLs as members of the same RL Set within the UE Context.]

[FDD - After addition of the new RL(s), the UL out-of-sync algorithm defined in ref. [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters $N_OUTSYNC_IND$ and $T_RLFAILURE$ that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

Response message:

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message the DRNS shall:

- [FDD -start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerning RL on the Uu interface;
- if the Delayed Activation IE indicates "CFN":
 - [FDD start transmission on the DL DPDCH(s) of the new RL as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]

- [TDD - start transmission on the new RL at the CFN indicated in the Activation CFN IE as specified in ref. [4].]

8.3.2.3 Unsuccessful Operation

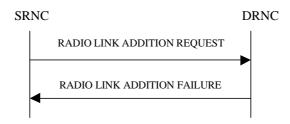


Figure 8: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one RL is unsuccessful, the DRNC shall respond with a RADIO LINK ADDITION FAILURE message. DRNC shall include in the RADIO LINK ADDITION FAILURE message a general *Cause* IE or a *Cause* IE for each failed radio link. The *Cause* IE indicates the reason for failure.

[FDD - If some RL(s) were established successfully, the DRNC shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Combining Resources not Available;
- Combining not Supported
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- CM not Supported;
- Reconfiguration CFN not Elapsed;
- Number of DL Codes not Supported;
- Number of UL codes not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;

- HW Failure;
- Not enough User Plane Processing Resources.

8.3.2.4 Abnormal Conditions

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available in the DRNC for the considered UE Context, the DRNC shall reject the procedure for this particular Radio Link and send the RADIO LINK ADDITION FAILURE message.

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Status* IEs in the *Active Pattern Sequence Information* IE and it does not address exactly all ongoing compressed mode patterns the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the *Cause* IE value "Invalid CM settings".]

[FDD - If the RADIO LINK ADDITION REQUEST message is used to establish a new RL without compressed mode when compressed mode is active for the existing RL(s) (as specified in subclause 8.3.2.2), and if at least one of the new RLs is to be established in a cell that has the same UARFCN (both UL and DL) as at least one cell with an already existing RL, the DRNS shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s), the DRNC shall reject the Radio Link Addition procedure and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall reject the Radio Link Addition procedure and respond with the RADIO LINK ADDITION FAILURE message.

8.3.3 Radio Link Deletion

8.3.3.1 General

The Radio Link Deletion procedure is used to release the resources in a DRNS for one or more established radio links towards a UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Deletion procedure may be initiated by the SRNC at any time after establishing a Radio Link.

8.3.3.2 Successful Operation

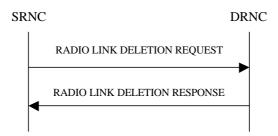


Figure 9: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the SRNC to the DRNC.

Upon receipt of this message, the DRNS shall delete the radio link(s) identified by the *RL ID* IE(s) -in the message, shall release all associated resources and shall respond to the SRNC with a RADIO LINK DELETION RESPONSE message.

If the radio link(s) to be deleted represent the last radio link(s) for the UE in the DRNS and if the UE is not using any common resources in the DRNS, then the DRNC shall release the UE Context.

[FDD - After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE_that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.]

8.3.3.3 Unsuccessful Operation

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8.3.3.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE does not exist, the DRNC shall respond with the RADIO LINK DELETION RESPONSE message.

8.3.4 Synchronised Radio Link Reconfiguration Preparation

8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.4.2 Successful Operation

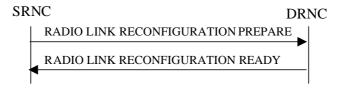


Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon receipt, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Modify* IEs, the DRNS shall treat them each as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs To Modify* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Traffic Class* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Allocation/Retention Priority* IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.
- [FDD If the *DCHs To Modify* IE contains a *DRAC Control* IE set to "requested" and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link established in a cell in which DRAC is active. If the DRNS does not support DRAC, DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- [TDD If the *DCHs to Modify* IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH. in the new configuration]

- [TDD If the *DCH* s to *Modify* IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]
- If the *DCHs* <u>*To Modify</u> IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs To Add* IEs, the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCH Information* IE includes a *DCHs To Add* IE with multiple *DCH Specific Info* IEs, the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.
- [TDD If the DCH Specific Info IE includes the Unidirectional DCH Indicator IE set to "Downlink DCH only", the DRNS shall ignore the Transport Format Set IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]
- [FDD For each DCH which do not belong to a set of co-ordinated DCHs and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4]. [TDD If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.
- The DRNS should store the *Traffic Class* IE received for a DCH to be added in the new configuration. The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start-Ppoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End-Ppoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]
- [FDD If the *DRAC Control* IE is set to "requested" in the *DCH Specific Info* IE for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each radio link supported by a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- If the *DCHs* <u>*To</u> *Add* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs *Io Add* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs +Io* Add IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.
- [TDD The DRNS shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]
- [TDD The DRNS shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCH To Delete*, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]

- [FDD If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink DPCCH *Slot Format* to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control when the new configuration is being used.]
- [FDD If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]
- [FDD If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the DRNS shall apply the values in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD If the *DL DPCH Information* IE includes the *Number of DL Channelisation Codes* IE, the DRNS shall allocate given number of Downlink Channelisation Codes per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new configuration shall be included in the RADIO LINK RECONFIGURATION READY message within the *DL Code Information* IE as a *FDD DL Channelisation Code Number* IE when sent to the SRNC. If some Transmission Gap Pattern sequences using 'SF/2' method are already initialised in the DRNS, DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message in case the DRNS selects to change the Scrambling code change method for one or more DL Channelisation Code.]
- [FDD When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *p*th to "*PhCH number p*".]
- [FDD If the *DL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the DRNS shall apply the new slot format used in DPCH in DL.]
- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the DRNS shall apply the new signalling mode of the TFCI.]
- [FDD If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the DRNS shall apply the new parameter to define whether fixed or flexible positions of transport channels shall be used in the physical channel.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE_set to "Not Used", the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]
 - [FDD If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]
 - [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes *Split Type IE*, then the DRNS shall apply this information to the new configuration of TFCI.]

- [FDD - If the *DL DPCH Information* IE includes the *Length of TFC12* IE, the DRNS shall apply this information to the length of TFCI(field 2) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or until the last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE and the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to 'SF/2', the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not].

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs, then the DRNS shall treat them each as follows:]

- [TDD If any of the *UL CCTrCH To Modify* IEs or *DL CCTrCH To Modify* IEs includes any of the *TFCS* IE, *TFCI coding* IE, *Puncture limit* IE, or *TPC CCTrCH ID* IEs the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]
- [TDD If any of the following listed DPCH information IEs are modified in the new prepared configuration, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the IEs indicating the new values: Repetition Period IE, Repetition Length IE, TDD DPCH Offset IE, [3.84Mcps TDD UL Timeslot Information IE,] [1.28Mcps TDD UL Timeslot Information LCR IE,] [3.84Mcps TDD DL Timeslot Information IE,] [1.28Mcps TDD DL Timeslot Information LCR IE,] [3.84Mcps TDD Midamble Shift And Burst Type IE,] [1.28Mcps TDD Midamble Shift LCR IE,] TFCI Presence IE, [3.84Mcps TDD TDD Channelisation Code IE,] [1.28Mcps TDD and/or TDD Channelisation Code LCR IE,] [1.28Mcps TDD TDD UL DPCH Time Slot Format LCR IE or TDD DL DPCH Time Slot Format LCR IE].]
- [1.28Mcps TDD If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control according [12] and [22] in the new configuration.]
- [TDD If any of the *DL CCTrCH To Modify* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall apply these as the new values, otherwise the previous values specified for this CCTrCH are still applicable.]
- [1.28Mcps TDD If the *UL CCTrCH to Modify* IE includes the *TDD TPC Uplink Step Size* IE, the DRNS shall apply this value to the uplink TPC step size in the new configuration.]
- [TDD If the *DL CCTrCH to Modify* IE includes the *TDD TPC Downlink Step Size* IE, the DRNS shall apply this value to the downlink TPC step size in the new configuration.]

[TDD - UL/DL CCTrCH Addition]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IEs or *DL CCTrCH To Add* IEs, the DRNS shall include this CCTrCH in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Add* IEs, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the DPCH information in [3.84Mcps TDD - *UL DPCH to be Added IE/DL DPCH to be Added IEs*] [1.28Mcps TDD - *UL DPCH to be Added LCR* IE/*DL DPCH to be Added LCR* IEs] [3.84Mcps TDD - If no UL DPCH is active before a reconfiguration which adds an UL DPCH, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation* IE in the RADIO LINK RECONFIGURATION READY message.]]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD TPC Downlink Step Size* IE within a *DL CCTrCH To Add* IE, the DRNS shall set the TPC step size of that CCTrCH to that value, otherwise the DRNS shall use the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - The DRNS shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [12] and [22] in the new configuration.]

[TDD - If any of the *DL CCTrCH To Add* IEs includes any *TPC CCTrCH ID* IEs, the DRNS shall configure the identified UL CCTrCHs with TPC according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH To Add* IE includes *TDD TPC Uplink Step Size* IE, the DRNS shall apply the uplink TPC step size in the new configuration.]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Delete* IEs or *DL CCTrCH To Delete* IEs, the DRNS shall remove this CCTrCH in the new configuration, and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message corresponding *UL DPCH to be Deleted* IEs and *DL DPCH to be Deleted* IEs.]

SSDT Activation/Deactivation:

- [FDD If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE", then in the new configuration the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE in *RL Information* IE, and the *SSDT Cell Identity Length* IE in *UL DPCH Information* IE.]
- [FDD If the *RL Information* IE includes the *Qth Parameter* IE and the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS shall use the *Qth Parameter* IE, if Qth signalling is supported, when SSDT is activated in the new configuration.]
- [FDD If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

DL Power Control:

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and power balancing is active, DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, at the CFN in the RADIO LINK RECONFIGURATION COMMIT message, according to subclause 8.3.15, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION READY message.]

DSCH Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.

The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added DSCH.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.

[FDD - If the *DSCHs To Add* IE includes the *Enhanced DSCH PC* IE, the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]

- [FDD the SSDT Cell Identity for EDSCHPC IE in the RL Information IE, if the SSDT Cell Identity IE is not included in the RL Information IE or]
- [FDD the SSDT Cell Identity IE in the RL Information IE, if both the SSDT Cell Identity IE and the SSDT Cell Identity for EDSCHPC are included in the RL Information IE.]

[FDD - together with the SSDT Cell Identity Length IE in UL DPCH Information IE, and Enhanced DSCH PC IE, in the new configuration.]

[FDD - If the enhanced DSCH power control is activated and the TFCI PC Mode 2 is supported, the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Modify* IE, then the DRNS shall treat them each as follows:

- The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified DSCH.
- [FDD If the DSCH To Modify IE includes any DSCH Info IEs, then the DRNS shall treat them each as follows:]
 - [FDD If the *DSCH Info* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DRNS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
 - [FDD If the *DSCH Info* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
 - [FDD If the DSCH Info IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]
- [FDD If the *DSCH To Modify* IE includes the *PDSCH RL ID* IE, then the DRNS shall use it as the new DSCH RL identifier.]
- [FDD If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]
- [FDD If the *DSCH To Modify* IE includes the *Transport Format Combination Set* IE, then the DRNS shall use it as the new Transport Format Combination Set associated with the DSCH.]
- [TDD If the *DSCHs To Modify* IE includes the *CCTrCH ID* IE, then the DRNS shall map the DSCH onto the referenced DL CCTrCH.]
- [TDD If the *DSCHs To Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
- [TDD If the *DSCHs To Modify* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD If the *DSCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]
- [FDD If the *DSCHs To Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC Active in the UE", the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]
 - [FDD the SSDT Cell Identity for EDSCHPC IE in RL Information IE, if the SSDT Cell Identity IE is not included in the RL Information IE or]
 - [FDD the SSDT Cell Identity IE in the RL Information IE, if both the SSDT Cell Identity IE and the SSDT Cell Identity for EDSCHPC are included in the RL Information IE.]

- [FDD together with the SSDT Cell Identity Length IE in UL DPCH Information IE, and Enhanced DSCH PC IE, in the new configuration.]
- [FDD If the *DSCHs To Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the DRNS shall deactivate enhanced DSCH power control in the new configuration.]
 - [FDD If the enhanced DSCH power control is activated and the TFCI PC Mode 2 is supported, the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DSCHs To Delete* IE requesting the deletion of all DSCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

[3.84 Mcps TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

If the requested modifications are allowed by the DRNS and the DRNS has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message.

The DRNC shall include the *DSCH Initial Window Size* IE in the RADIO LINK RECONFIGURATION READY message for each DSCH, if the DRNS allows the SRNC to start transmission of MAC-c/sh SDUs before the DRNS has allocated capacity on user plane as described in [32].

[TDD USCH Addition/Modification/Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify*, *USCH To Add* or *USCH To Delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then, the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of USCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

[TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each added USCH.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Modify* IE, then the DRNS shall treat them each as follows:]

- [TDD If the *USCH To Modify* IE includes any of the Allocation/Retention Priority IE, Scheduling Priority Indicator IE or TrCH Source Statistics Descriptor IE, the DNRS shall use them to update the set of USCH Priority classes.]
- [TDD If the *USCH To Modify* IE includes any of the *CCTrCH ID* IE, *Transport Format Set* IE, *BLER* IE or *RB Info* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD If the *USCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READ Y message if a USCH is added and at least one DCH exists in the new

configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

- [TDD - The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified USCH.]

RL Information:

[FDD- If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the DRNS shall adjust the timing of the radio link accordingly in the new configuration.]

HS-DSCH Information Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs and if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNS shall use this information to add/modify/delete the indicated HS-DSCH resources to/from this radio link If the *HS-PDSCH RL ID* IE does not indicate a radio link in the DRNS, then the DRNS shall update the configuration of the HS-DSCH according to the received *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs. The DRNS shall store the latest HS-DSCH configuration until the UE context is deleted.

[FDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

[TDD - If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH parameters corresponding to the HS-DSCH. The DRNC shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD - *HS-SCCH Specific Information Response*] [1.28Mcps TDD - *HS-SCCH Specific Information Response LCR*] IEs in the RADIO LINK RECONFIGURATION READY message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH Information to Delete* IE requesting the deletion of all HS-DSCH resources for the UE Context, then the DRNC shall release the HS-DSCH-RNTI allocated to the UE Context, if there was one.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE and there is a HS-DSCH existing in the UE Context after reconfiguration, then:

- If the indicated HS-PDSCH RL ID is in the DRNS and there was no HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If the indicated HS-PDSCH RL ID is in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new HS-DSCH-RNTI to the UE Context, release the old HS-DSCH-RNTI and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If the indicated HS-PDSCH RL ID is not in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall release this HS-DSCH-RNTI.
- If a reset of the MAC-hs is not required the DRNC shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.
- [FDD If the indicated HS-PDSCH RL ID is in the DRNS and is different from previous one, then the DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related MAC-d flows.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE, the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]

[FDD - If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use the indicated power offset in the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated MAC-hs window size value in the new configuration.

The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for each MAC-d flow, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].

If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *T1* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated T1 value in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE in the *HS-DSCH Information To Modify* IE or the *HS-DSCH Information To Add* IE, then the DRNS shall use the indicated Discard Timer value in the new configuration.

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD -If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION READY message, if the Uplink Timing Advance Control parameters have been changed.]

[TDD] DSCH RNTI Addition/Deletion

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the PDSCH RL ID IE, then the DRNS shall use it as the new RL identifier for PDSCH and PUSCH..]

- [TDD If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the DSCH-RNTI IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the DSCH-RNTI IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a DSCHs to Delete IE and/or a USCHs to Delete IE which results in the deletion of all DSCH and USCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

[FDD – Phase Reference Handling]:

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Support Of Dedicated Pilots For Channel Estimation* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for DCH or DSCH.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for HS-DSCH.]

[FDD – If Primary CPICH usage for channel estimation information has been reconfigured Primary CPICH usage for channel estimation information has been reconfigured, the DRNC shall include the Primary CPICH Usage For Channel Estimation IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If Secondary CPICH information for channel estimation has been reconfigured for channel estimation has been reconfigured, the DRNC shall include the *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *Phase Reference Update Indicator* IE, DRNC shall modify the channel estimation information according to [10] subclause 4.3.2.1 and set the value(s) in *Primary CPICH Usage For Channel Estimation* IE and/or *Secondary CPICH Information Change* IE in the RADIO LINK RECONFIGURATION READY message accordingly.

General

If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IE in the *DSCHs To Modify* IE, *DSCHs To Add* IE, [TDD - *USCHs To Modify* IE, *USCHs To Add* IE], *HS-DSCH Information To Modify* IE, *HS-DSCH Information To Add* IE or in the *RL Specific DCH Information* IEs, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the DCHs in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the DRNS, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included for only one of the combined Radio Links.

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include in the RADIO LINK RECONFIGURATION READY message the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE respectively. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than

indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL -except during compressed mode, when the dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate Minimum DL TX Power IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION READY message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the [3.84Mcps TDD - *DL Time Slot ISCP Info* IE][1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

8.3.4.3 Unsuccessful Operation

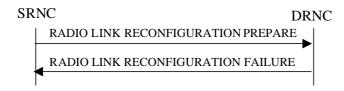


Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the DRNS cannot reserve the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, it shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure for each failed radio link in a *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported;
- Number of DL Codes not Supported;
- Number of UL Codes not Supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;
- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];

- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- RL Timing Adjustment not Supported.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.4.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE" and SSDT is not active in the current configuration, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure if the *UL DPCH Information* IE does not include the *SSDT Cell Identity Length* IE. The DRNC shall then respond with a RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the *DSCHs To Add* IE includes the *Enhanced DSCH PC* IE and the *DSCH To Modify* IE include the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", then the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

[FDD - If both the DSCHs To Add IE and the DSCH To Modify IE include Enhanced DSCH PC IE, then the DRNS shall ignore the Enhanced DSCH PC IE in the DSCH To Add IE.]

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IEs, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *RL Information* IE includes more than one *DL Reference Power* IEs, the DRNS shall reject the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the RADIO LINK RECONFIGURATIO PREPARE message does not include the *Split Type* IE but includes *TFCI Signalling Mode* IE set to "Split", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE but the *Split type* IE is set to "Logical", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Split Type* IE set to the value "Hard" and the *Length Of TFCI2* IE set to the value "1", "2", "5", "8", "9" or "10", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Split Type* IE but includes the *Length of TFC12* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel or HS-DSCH MAC-d flow being added, or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Synchronised Radio Link Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

8.3.5 Synchronised Radio Link Reconfiguration Commit

8.3.5.1 General

This procedure is used to order the DRNS to switch to the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

8.3.5.2 Successful Operation



Figure 12: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The DRNS shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.

[FDD - If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the DRNS.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1 and in [32], subclause 5.3.1..

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CFN* IE. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

8.3.5.3 Abnormal Conditions

If a new transport bearer is required for the new configuration and it is not available at the requested CFN, the DRNS shall initiate the Radio Link Failure procedure.

8.3.6 Synchronised Radio Link Reconfiguration Cancellation

8.3.6.1 General

This procedure is used to order the DRNS to release the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

8.3.6.2 Successful Operation



Figure 13: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

Upon receipt of the RADIO LINK RECONFIGURATION CANCEL message from the SRNC, the DRNS shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.6.3 Abnormal Conditions

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8.3.7 Unsynchronised Radio Link Reconfiguration

8.3.7.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

The procedure is used when there is no need to synchronise the time of the switching from the old to the new radio link configuration in the cells used by the UE-UTRAN connection within the DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.7.2 Successful Operation

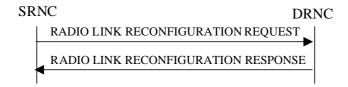


Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the DRNC.

Upon receipt, the DRNS shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IEs, then the DRNS shall treat them as follows:

- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes a *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Frame Handling Priority* IE, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *DCH Specific Info* IE includes the *Traffic Class* IE, the DRNC should use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- If the DCHs To Modify IE contains a DCH Specific Info IE which includes the Allocation/Retention Priority IE, the DRNS shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A
- [FDD If the *DRAC Control* IE is present and set to "requested" in *DCHs *To Modify* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link supported by a cell in which DRAC is active.]
- [TDD If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH in the new configuration.]
- [TDD If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH in the new configuration.]
- If the *DCHs To Modify* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new

- configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
- If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Add* IEs, then the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCHs To Add* IE includes multiple DCH Specific Info IEs then the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if all of them can be in the new configuration.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.
- [TDD If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only", the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]
- [FDD For each DCH which does not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.
- The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start-Ppoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End-Ppoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- [FDD If the *DRAC Control* IE is set to "requested" in *DCH Specific Info* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link supported by a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Delete* IEs, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

[FDD - Physical Channel Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the DRNS shall apply the new TFCS in the Uplink of the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD If the *DL DPCH Information* IE includes the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE for the DL, the DRNS shall apply the new TFCI Signalling Mode in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, and if the *Downlink Compressed Mode Method* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to 'SF/2', the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, without changing any of the DL Channelisation Codes or DL Scrambling Codes, indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

-[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Modify* IEs or *PDL CCTrCH Information To Modify* Ies which contain a *TFCS* IE, the DRNS shall apply the included *TFCS* IE as the new value(s) to the referenced CCTrCH. Otherwise the DRNS shall continue to apply the previous value(s) specified for this CCTrCH.]

[1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the DRNS shall apply this value as the new configuration and use it for the UL inner loop power control according [12] and [22].]

[TDD - UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH Information To Delete* IEs or *DL CCTrCH Information To Delete* IEs, the DRNS shall not include the referenced CCTrCH in the new configuration.]

DL Power Control:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE and the power balancing is active, the DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power Information* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE for each affected RL in the RADIO LINK RECONFIGURATION RESPONSE message.]

[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the *Uplink Synchronisation Parameters LCR* IE is present, the DRNC shall use the indicated values of *Uplink synchronisation stepsize* IE and *Uplink synchronisation frequency* IE when evaluating the timing of the UL synchronisation.]

[1.28Mcps TDD - Uplink Timing Advance Control LCR]:

[1.28Mcps TDD - The DRNC shall include the *Uplink Timing Advance Control LCR* IE in the RADIO LINK RECONFIGURATION RESPONSE message, if the Uplink Timing Advance Control parameters have been changed.]

[FDD – Phase Reference Handling]:

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for DCH or DSCH.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE, the DRNC shall assume that dedicated pilots may be used for channel estimation for HS-DSCH.]

General:

If the requested modifications are allowed by the DRNS, and if the DRNS has successfully allocated the required resources and changed to the new configuration, the DRNC shall respond to the SRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

The DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iur interface, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE only for one of the DCHs in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the DRNS, the DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message for only one of the combined Radio Links.

Any allowed rate for the uplink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed UL Rate* IE in the *DCH Information Response* IE for this Radio Link.

Any allowed rate for the downlink of a modified DCH provided for the old configuration will not be valid for the new configuration. If the DRNS needs to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Allowed DL Rate* IE in the *DCH Information Response* IE for this Radio Link.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link when these values are changed.

[FDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL except during compressed mode, when the dP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[3.84 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular DCH type CCTrCHs, the DRNC shall include the new value(s) for that CCTrCH in the *CCTrCH Maximum DL TX Power* IE and *CCTrCH Minimum DL TX Power*. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE/CCTrCH Maximum DL TX Power IE or lower than indicated by the appropriate Minimum DL TX Power IE/CCTrCH Minimum DL TX Power IE on any DL DPCH within each CCTrCH of the RL.]

[1.28 Mcps TDD - If the DL TX power upper or lower limit has been re-configured, the DRNC shall include the new value(s) in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK RECONFIGURATION RESPONSE message. If the maximum or minimum power needs to be different for particular timeslots within a DCH type CCTrCH, the DRNC shall include the new value(s) for that timeslot in the *Maximum DL TX Power* IE and *Minimum DL TX Power* within the *DL Timeslot Information LCR* IE. The DRNS shall not transmit with a higher power than indicated by the appropriate *Maximum DL TX Power* IE or lower than indicated by the appropriate *Minimum DL TX Power* IE on any DL DPCH within each timeslot of the RL.]

8.3.7.3 Unsuccessful Operation



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Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the DRNS cannot allocate the necessary resources for all the new DCHs in a set of co-ordinated DCHs requested to be added, it shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported;
- CM not Supported.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.7.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed, and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Individual DL Reference Power Information* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Common DL Reference Power* IE, the DRNS shall reject the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall reject the Unsynchronised Radio Link Reconfiguration procedure, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

8.3.8 Physical Channel Reconfiguration

8.3.8.1 General

The Physical Channel Reconfiguration procedure is used by the DRNS to request the SRNC to reconfigure one of the configured physical channels.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS shall not initiate the Physical Channel Reconfiguration procedure if a Prepared Reconfiguration exists as defined in subclause 3.1, or if a Synchronised Radio Link Reconfiguration Preparation procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing for the relevant UE context.

8.3.8.2 Successful Operation

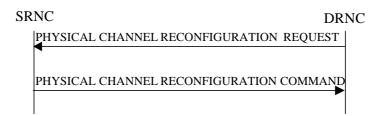


Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

When the DRNC detects the need to modify one of its physical channels, it shall send a PHYSICAL CHANNEL RECONFIGURATION REQUEST to the SRNC.

The PHYSICAL CHANNEL RECONFIGURATION REQUEST message contains the new value(s) of the physical channel parameter(s) of the radio link for which the DRNC is requesting the reconfiguration.

[FDD- If compressed mode is prepared or active and at least one of the downlink compressed mode methods is "SF/2", the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message indicating for each DL Channelisation Code whether the alternative scrambling code will be used or not if the downlink compressed mode methods "SF/2" is activated.]

[TDD - The SRNC shall apply the new values for any of [3.84Mcps TDD - *UL Code Information* IE, *Midamble Shift And Burst Type* IE,], [1.28Mcps TDD - *UL Code Information LCR* IE, *Midamble Shift LCR* IE], *TDD DPCH Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE included in the *UL DPCH Information* IE within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previous values specified for this DPCH shall still apply.]

[TDD - The SRNC shall apply the new values for any of [3.84Mcps TDD - *DL Code Information IE, Midamble Shift And Burst Type IE,*] [1.28Mcps TDD - *DL Code Information LCR IE, Midamble Shift LCR IE,*] TDD DPCH Offset IE Repetition Period IE, Repetition Length IE, or TFCI presence IE included in the *DL DPCH Information IE* within the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the previousvalues specified for this DPCH shall still apply.]

[3.84 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information* IE the SRNC shall apply the values of the *Midamble Shift And Burst Type* IE for each HS-PDSCH timeslot.]

[1.28 Mcps TDD - If the PHYSICAL CHANNEL RECONFIGURATION REQUEST includes *HS-PDSCH Timeslot Specific Information LCR* IE the SRNC shall apply the values of the *Midamble Shift LCR* IE for each HS-PDSCH timeslot.]

Upon receipt of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC shall decide an appropriate execution time for the change. The SRNC shall respond with a PHYSICAL CHANNEL RECONFIGURATION COMMAND message to the DRNC that includes the *CFN* IE indicating the execution time.

At the CFN, the DRNS shall switch to the new configuration that has been requested, and release the resources related to the old physical channel configuration.

8.3.8.3 Unsuccessful Operation

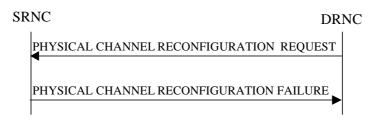


Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

If the SRNC cannot accept the reconfiguration request it shall send the PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC, including the reason for the failure in the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Reconfiguration not Allowed.

8.3.8.4 Abnormal Conditions

While waiting for the PHYSICAL CHANNEL RECONFIGURATION COMMAND message, if the DRNC receives any of the RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST, or RADIO LINK DELETION REQUEST messages, the DRNC shall abort the Physical Channel Reconfiguration procedure. These messages thus override the DRNC request for physical channel reconfiguration.

When the SRNC receives a PHYSICAL CHANNEL RECONFIGURATION REQUEST message while a Synchronised Radio Link Reconfiguration procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing, the SRNC shall ignore the request message and assume that receipt of any of the messages RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST or RADIO LINK DELETION REQUEST by the DRNC has terminated the Physical Channel Reconfiguration procedure. In this case the SRNC shall not send a PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC.

8.3.9 Radio Link Failure

8.3.9.1 General

This procedure is started by the DRNS when one or more Radio Links [FDD - or Radio Link Sets][TDD - or CCTrCHs within a Radio Link] are no longer available.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNS may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.9.2 Successful Operation

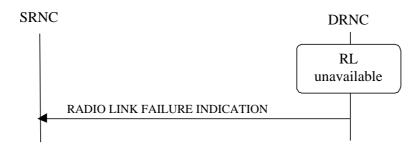


Figure 18: Radio Link Failure procedure, Successful Operation

When the DRNC detects that one or more Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs within a Radio Link] are no longer available, it shall send the RADIO LINK FAILURE INDICATION message to the SRNC. The message indicates the failed Radio Link(s) [FDD - or Radio Link Set(s)] [TDD - or CCTrCHs] with the most appropriate cause values defined in the *Cause* IE. If the failure concerns one or more individual Radio Links the DRNC shall include the affected Radio Link(s) using the *RL Information* IE. [FDD - If the failure concerns one or more Radio Link Set(s) the DRNC shall include the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD - If the failure concerns only the failure of one or more CCTrCHs within in a radio link the DRNC shall include the affected CCTrCHs using the *CCTrCH ID* IE].

When the RL Failure procedure is used to notify loss of UL synchronisation of a [FDD - Radio Link Set] [TDD - Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause* IE set to "Synchronisation Failure" when indicated by the UL synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2.

[FDD - When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Link(s)/Radio Link Set(s) due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the *Cause Value* IE set to "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link(s)/Radio Link Set(s) from the UE Context, or remove the UE Context itself.]

In the other cases the Radio Link Failure procedure is used to indicate that one or more Radio Link(s) [FDD - or Radio Link Set(s)] are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link from the UE Context, or remove the UE Context itself. When applicable, the allocation retention priorities associated with the transport channels shall be used by the DRNS to prioritise which Radio Links to indicate as unavailable to the SRNC.

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure;
- Invalid CM Settings.

Transport Layer Causes:

- Transport Resources Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- O&M Intervention.

8.3.9.3 Abnormal Conditions

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8.3.10 Radio Link Restoration

8.3.10.1 General

This procedure is used to notify establishment and re-establishment of UL synchronisation of one or more [FDD - RL Set(s)] [TDD - Radio Links or CCTrCH(s) in a Radio Link] on the Uu interface.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.10.2 Successful Operation



Figure 19: Radio Link Restoration procedure, Successful Operation

The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when and as specified by the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2. [FDD - The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set].

[TDD - If the re-established UL Uu synchronisation concerns one or more individual Radio Links the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected Radio Link(s).] [TDD - If the re-established synchronisation concerns one or more individual CCTrCHs within a radio link the DRNS shall include in the RADIO LINK RESTORE INDICATION message the *RL Information* IE to indicate the affected CCTrCHs.] [FDD - If the re-established UL Uu synchronisation concerns one or more Radio Link Sets the DRNC shall include in the RADIO LINK RESTORE INDICATION message the *RL Set Information* IE to indicate the affected Radio Link Set(s).]

8.3.10.3 Abnormal Conditions

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8.3.11 Dedicated Measurement Initiation

8.3.11.1 General

This procedure is used by an SRNS to request the initiation of dedicated measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.11.2 Successful Operation

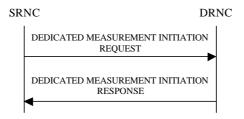


Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon receipt, the DRNC shall initiate the requested dedicated measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message.

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Links.

-[FDD - If the Dedicated Measurement Object Type is indicated as being "RLS" jin the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the UE Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the UE Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all the existing and future Radio Link Sets within the UE Context.]

[TDD - If the *DPCH ID* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE or *HS-SICH ID* IE is provided within the RL Information the measurement request shall apply for one existing DPCH per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this DPCH.]

[TDD - If the *HS-SICH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

[TDD - If the *Dedicated Measurement Type* IE is set to "HS-SICH reception quality", the DRNS shall initiate measurements of the failed, missed and total HS-SICH transmissions on all of the HS-SICH assigned to this UE Context. If either the failed or missed HS-SICH transmission satisfies the requested report characteristics, the DRNS shall report the result of both failed and missed transmission measurements along with the total number of transmissions.]

Report characteristics

The *Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the DRNS shall report the measurement result immediately in the DEDICATED MEASUREMENT INITIATION RESPONSE message. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Periodic" and if the *CFN* IE is not provided, the DRNS shall immediately and periodically initiate the Dedicated Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *CFN* IE is provided, the DRNS shall initiate a Dedicated Measurement Reporting procedure for this measurement at the CFN indicated in the *CFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *Report Characteristics* IE is set to "Event A", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, DRNS shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this falls occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event, the DRNS shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the DRNS shall initiate the Dedicated Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the DRNS shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On –Demand", the DRNS is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object(s) for which a measurement is defined exists any more, the DRNS shall terminate the measurement locally without reporting this to the SRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the DRNS shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the dedicated measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1 - a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

 F_n is the updated filtered measurement result

 F_{n-1} is the old filtered measurement result

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

 $a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient IE*. If the *Measurement Filter Coefficient IE* is not present, a shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Response message

If the DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message.

In the case in which the Report Characteristics IE is set to "On Demand":

- The DRNC shall include the measurement result in the *Dedicated Measurement Value* IE within the DEDICATED MEASUREMENT INITIATION RESPONSE message.
- If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT INITIATION RESPONSE message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].
- [TDD If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the DPCH ID of that DPCH in the *DPCH ID* IE.]
- [TDD If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

8.3.11.3 Unsuccessful Operation

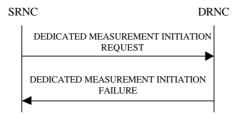


Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated for one of the RL/RLS, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

If the DEDICATED MEASUREMENT INITIATION REQUEST message includes the *Partial Reporting Indicator* IE, the DRNS shall, if partial reporting is supported, separate the unsuccessful measurement initiations from the successful measurement initiations. For the successful measurement initiations on a RL or an RLS, the DRNS shall include the *Successful RL Information* IE or the *Successful RL Set Information* IE for the concerned RL or RLS if the Report

Characteristics IE in the DEDICATED MEASUREMENT INITIATION REQUEST message was set to 'On-Demand'. For the unsuccessful measurement initiations, the DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Measurement not Supported For The Object
- Measurement Temporarily not Available

Miscellaneous Causes:

- Control Processing Overload
- HW Failure

8.3.11.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the DRNS shall reject the Dedicated Measurement Initiation procedure using the DEDICATED MEASUREMENT INITIATION FAILURE message.

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

| Dedicated Measurement Type | Report Characteristics Type | | | | | | | | |
|----------------------------------|-----------------------------|----------|------------|------------|------------|------------|------------|------------|--------------------|
| | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| SIR | X | Х | Х | Х | Х | Х | Х | Х | |
| SIR Error | X | X | Х | Х | Х | Х | Х | Х | |
| Transmitted Code Power | Х | Х | Х | Х | Х | Х | Х | Х | |
| RSCP | Х | Х | Х | Х | Х | Х | Х | Х | |
| Rx Timing Deviation | Х | Х | Х | Х | | | Х | Х | |
| Round Trip Time | Х | Х | Х | Х | Х | Х | Х | Х | |
| Rx Timing Deviation LCR | Х | Х | Х | Х | | | Х | Х | |
| HS-SICH Reception Quality | Х | Х | Х | Х | | | Х | Х | |

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [11] or [14] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall reject the Dedicated Measurement Initiation procedure.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the DRNS shall reject the Dedicated Measurement Initiation procedure, and the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message.

8.3.12 Dedicated Measurement Reporting

8.3.12.1 General

This procedure is used by the DRNS to report the results of the successfully initiated measurements requested by the SRNS with the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation



Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the DRNS shall initiate the Dedicated Measurement Reporting procedure. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the DRNC may include dedicated measurement values in the *Dedicated Measurement Value Information* IE for multiple objects in the DEDICATED MEASUREMENT REPORT message.

The *Measurement ID* IE shall be set to the Measurement ID provided by the SRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [23] and [24], the Measurement not available shall be reported in the *Dedicated Measurement Value Information* IE in the DEDICATED MEASUREMENT REPORT message, otherwise the DRNC shall include the *Dedicated Measurement Value* IE within the *Dedicated Measurement Value Information* IE.

If the CFN Reporting Indicator when initiating the measurement with the Dedicated Measurement Initiation procedure was set to "FN Reporting Required", the DRNC shall include the *CFN* IE in the DEDICATED MEASUREMENT REPORT message. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

[TDD - If the measurement was made on a particular DPCH, the DEDICATED MEASUREMENT REPORT message shall include the DPCH ID of that DPCH in the *DPCH ID* IE.]

[TDD - If the measurement was made on a particular HS-SICH, the DEDICATED MEASUREMENT INITIATION RESPONSE message shall include the ID of that HS-SICH in the *HS-SICH ID* IE.]

8.3.12.3 Abnormal Conditions

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8.3.13 Dedicated Measurement Termination

8.3.13.1 General

This procedure is used by the SRNS to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.13.2 Successful Operation



Figure 23: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the SRNC to the DRNC.

Upon receipt, the DRNS shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

8.3.13.3 Abnormal Conditions

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8.3.14 Dedicated Measurement Failure

8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. When partial reporting is allowed and supported, this procedure shall be used to report that measurement for one or more RL/RLS can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Failure procedure at any time after establishing a Radio Link.

8.3.14.2 Successful Operation



Figure 24: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested dedicated measurement can no longer be reported. The DRNC has locally terminated the indicated measurement. The DRNC shall include in the DEDICATED MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

The DRNS shall include *Unsuccessful RL Information* IE or the *Unsuccessful RL Set Information* IE for the concerned RL or RLS if partial reporting is allowed and it is supported. The DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Control [FDD]

8.3.15.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more radio links for one UE.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Control procedure may be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated in this DRNS the deletion of the last Radio Link for this UE context, the Downlink Power Control procedure shall not be initiated.

8.3.15.2 Successful Operation



Figure 25: Downlink Power Control procedure, Successful Operation

The Downlink Power Control procedure is initiated by the SRNC sending a DL POWER CONTROL REQUEST message to the DRNC.

The Power Adjustment Type IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Common". As long as the Power Balancing Adjustment Type of the UE Context is set to "Common", the DRNS shall perform the power adjustment (see below) for all existing and future radio links for the UE Context and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "Individual". The DRNS shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Power per RL. If the Power Balancing Adjustment Type of the UE Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the DRNS shall set the Power Balancing Adjustment Type of the UE Context set to "None" and the DRNS shall suspend on going power adjustments for all radio links for the UE Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the DRNS shall activate inner loop DL power control for all radio links for the UE Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the DRNS shall deactivate inner loop DL power control for all radio links for the UE Context according to ref. [10].

Power Adjustment

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$$\sum P_{bal} = (1 - r)(P_{ref} + P_{P-CPICH} - P_{init})$$
 with an accuracy of ±0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, P_{ref} is the value of the *DL Reference Power* IE, $P_{P-CPICH}$ is the power used on the primary CPICH, P_{init} is the code power of the last slot of the previous adjustment period and r is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, P_{init} shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the DRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.15.3 Abnormal Conditions

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8.3.16 Compressed Mode Command [FDD]

8.3.16.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the DRNS for one UE-UTRAN connection. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.16.2 Successful Operation



Figure 26: Compressed Mode Command procedure, Successful Operation

The procedure is initiated by the SRNC sending a COMPRESSED MODE COMMAND message to the DRNC.

Upon receipt of the COMPRESSED MODE COMMAND message from the SRNC and at the CFN indicated in the *CM Configuration Change CFN* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

8.3.16.3 Abnormal Conditions

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8.3.17 Downlink Power Timeslot Control [TDD]

8.3.17.1 General

The purpose of this procedure is to provide the DRNS with updated DL Timeslot ISCP values to use when deciding the DL TX Power for each timeslot.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The Downlink Power Timeslot Control procedure can be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS, the Downlink Power Timeslot Control procedure shall not be initiated.

8.3.17.2 Successful Operation



Figure 26A: Downlink Power Timeslot Control procedure, Successful Operation

The Downlink Power Timeslot Control procedure is initiated by the SRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the DRNC.

Upon receipt of the DL POWER TIMESLOT CONTROL REQUEST message, the DRNS shall use the included [3.84Mcps TDD - *DL Timeslot ISCP Info* IE] [1.28Mcps TDD - *DL Timeslot ISCP Info LCR* IE] value when deciding the DL TX Power for each timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link in which the interference is low, and increase the DL TX power in those timeslots in which the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP* IE is present, the DRNS should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

8.3.17.3 Abnormal Conditions

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8.3.18 Radio Link Pre-emption

8.3.18.1 General

This procedure is started by the DRNS when resources need to be freed.

This procedure shall use the signalling bearer connection for the UE Context associated with the RL to be pre-empted.

The DRNS may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.18.2 Successful Operation

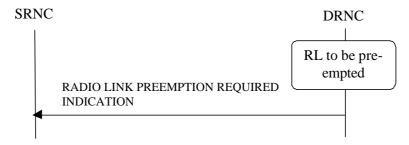


Figure 26B: Radio Link Pre-emption procedure, Successful Operation

When DRNC detects that one or more Radio Link(s) should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the SRNC. If all Radio Links for a UE Context should be

pre-empted, the *RL Information* IE shall_not be included in the message. If one or several but not all Radio Link(s) should be pre-empted for an UE Context, the Radio Link(s) that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted, should be deleted by the SRNC.

When only the HS-DSCH traffic on a Radio Link should be pre-empted, the DRNC shall indicate the HS-DSCH MAC-d flow(s) that should be pre-empted by including the *HS-DSCH MAC-d Flow Specific Information* IE in the RADIO LINK PREEMPTION REQUIRED INDICATION message.

8.3.18.3 Abnormal Conditions

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8.3.19 Radio Link Congestion

8.3.19.1 General

This procedure is started by the DRNS when resource congestion is detected and the rate of one or more DCHs, corresponding to one or more radio links, is preferred to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL resource congestion situation, affecting these radio links. This procedure shall use the signalling bearer connection for the relevant UE Context.

The Radio Link Congestion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.19.2 Successful Operation



Figure 26C: Radio Link Congestion procedure, Successful Operation

Start of an UL/DL Resource Congestion Situation

When the DRNC detects the start of a UL/DL resource congestion situation and prefers the rate of one or more DCHs for one or more Radio Link(s) to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced. For each DCH within the RL with UL congestion, the DRNC shall indicate the desired maximum UL data rate with the *Allowed UL Rate* IE in the *Allowed Rate Information* IE. For each DCH within the RL with DL congestion, the DRNC shall indicate the desired maximum DL data rate with the *Allowed DL Rate* IE in the *Allowed Rate Information* IE.

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the *Congestion Cause* IE and the indicated *Allowed DL Rate* IE and/or *Allowed UL Rate* IE for a DCH.

Change of UL/DL Resource Congestion Situation

The DRNC shall indicate any change of the UL/DL resource congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate(s) of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that for at least one DCH the new allowed rate is lower than the previously indicated allowed rate for that DCH, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for the DCH(s).

End of UL/DL Resource Congestion Situation

The end of an UL resource congestion situation, affecting a specific RL, shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerned RL. The end of a DL resource congestion situation, affecting a specific RL, shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerned RL.

8.3.19.3 Abnormal Conditions

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8.3.20 Radio Link Activation

8.3.20.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

8.3.20.2 Successful Operation



Figure 26D: Radio Link Activation procedure

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the SRNC to the DRNC. This procedure shall use the signalling bearer connection for the relevant UE Context.

Upon receipt, the DRNS shall for each concerned RL:

- if the Delayed Activation Update IE indicates "Activate":
 - if the *Activation Type* IE equals "Unsynchronised":
 - [FDD- start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4].]
 - [TDD- start transmission on the new RL immediately as specified in [4].]
 - if the *Activation Type* IE equals "Synchronised":
 - [FDD- start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD- start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [4].]
 - [FDD- the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see 8.3.7).]
 - [TDD- the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on

the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

- [FDD- if the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]
- [FDD- if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]
- if the *Delayed Activation Update* IE indicates "Deactivate":
 - stop DL transmission immediately if the Deactivation Type IE equals "Unsynchronised", or at the CFN indicated by the Deactivation CFN IE if the Deactivation Type IE equals "Synchronised".

8.3.20.3 Abnormal Conditions

[FDD- If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the DRNC shall initiate the ERROR INDICATION procedure.]

8.3.21 Radio Link Parameter Update

8.3.21.1 General

The Radio Link Parameter Update procedure is executed by the DRNS to update parameters related to HS-DSCH on a radio link for a UE-UTRAN connection or to update phase reference on a list of the radio links.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Parameter Update procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.21.2 Successful Operation



Figure 26E: Radio Link Parameter Update Indication, Successful Operation

The Radio Link Parameter Update procedure is initiated by the DRNS by sending the RADIO LINK PARAMETER UPDATE INDICATION message to the SRNC.

HS-DSCH related Parameter(s) Updating:

If RADIO LINK PARAMETER UPDATE INDICATION message is used to update the parameters related to HS-DSCH, it contains suggested value(s) of the HS-DSCH related parameter(s) that should be reconfigured on the radio link.

If the DRNS needs to update HS-DSCH related parameters, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including [FDD - HS-DSCH FDD Update Information IE] [TDD - HS-DSCH TDD Update Information IE].

If the DRNS needs to allocate new HS-SCCH Codes, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *HS-SCCH Code Change Indicator* IE.

[FDD - If the DRNS needs to update the CQI Feeedback Cycle k, CQI Repetition Factor, ACK-NACK Repetition Factor, CQI Power Offset, ACK Power Offset and/or NACK Power Offset, the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including CQI Feeedback Cycle k IE, CQI Repetition Factor IE, ACK-NACK Repetition Factor IE, CQI Power Offset IE, ACK Power Offset IE and/or NACK Power Offset IE.]

[TDD - If the DRNS needs to update the TDD ACK-NACK Power Offset the DRNS shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including TDD ACK-NACK Power Offset IE.]

[FDD – Phase Reference Handling]:

[FDD – If DRNS needs to update phase reference for the channel estimation for one or several Radio Links, the DRNC shall initiate RADIO LINK PARAMETER UPDATE INDICATION message including *Phase Reference Update Information* IE for the concerned RL(s).]

8.3.21.3 Abnormal Conditions

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8.4 Common Transport Channel Procedures

8.4.1 Common Transport Channel Resources Initialisation

8.4.1.1 General

The Common Transport Channel Resources Initialisation procedure is used by the SRNC for the initialisation of the Common Transport Channel user plane towards the DRNC and/or for the initialisation of the Common Transport Channel resources in the DRNC to be used by a UE.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.1.2 Successful Operation

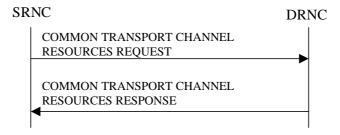


Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation

The SRNC initiates the procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES REQUEST message to the DRNC.

If the value of the *Transport Bearer Request Indicator* IE is set to "Bearer Requested", the DRNC shall store the received *Transport Bearer ID* IE. The DRNC may use the *Transport Layer Address* and *Binding ID* IEs included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message received from the SRNC when establishing a transport bearer for the common transport channel. In addition, the DRNC shall include its own *Binding ID* IE and *Transport Layer Address* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the value of the *Transport Bearer Request Indicator* IE is set to" Bearer not Requested", the DRNC shall use the transport bearer indicated by the *Transport Bearer ID* IE.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall allocate a C-RNTI for the indicated cell and include the *C-RNTI* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell indicated by the *C-ID* IE and the corresponding *C-ID* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the *C-ID* IE is not included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell where the UE is located and the corresponding *C-ID* IE. The DRNC shall include the *FACH Scheduling Priority* IE and *FACH Initial Window Size* IE in the *FACH Flow Control Information* IE of the *FACH Info for UE Selected S-CCPCH* IE for each priority class that the DRNC has determined shall be used. The DRNC may include several *MAC-c/sh SDU Length* IEs for each priority class.

If the DRNS has any RACH, [FDD - CPCH,] and/or FACH resources previously allocated for the UE in another cell than the cell in which resources are currently being allocated, the DRNS shall release the previously allocated RACH, [FDD - CPCH,] and/or FACH resources.

If the DRNS has successfully reserved the required resources, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *Permanent NAS UE Identity* IE is present in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNS shall store the information for the considered UE Context for the lifetime of the UE Context.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can reserve resources on a common transport channel in this cell or not.

8.4.1.3 Unsuccessful Operation

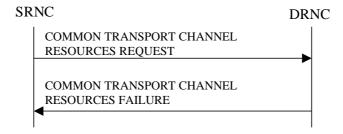


Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

If the *Transport Bearer Request Indicator* IE is set to "Bearer Requested" and the DRNC is not able to provide a Transport Bearer, the DRNC shall reject the procedure and respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available for the considered UE Context, the DRNC shall reject_the procedure -and send the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, including the reason for the failure in the *Cause* IE.

Typical cause values are:

Radio Network Layer Causes:

- Common Transport Channel Type not Supported;
- Cell reserved for operator use.

Transport Layer Causes:

Transport Resource Unavailable.

8.4.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the DRNC shall reject the procedure using the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

8.4.2 Common Transport Channel Resources Release

8.4.2.1 General

This procedure is used by the SRNC to request release of Common Transport Channel Resources for a given UE in the DRNS. The SRNC uses this procedure either to release the UE Context from the DRNC (and thus both the D-RNTI and the C-RNTI) or to release only the C-RNTI.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.2.2 Successful Operation



Figure 29: Common Transport Channel Resources Release procedure, Successful Operation

The SRNC initiates the Common Transport Channel Resources Release procedure by sending the COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST message to the DRNC. Upon receipt of the message the DRNC shall release the UE Context identified by the D-RNTI and all its related RACH, [FDD - CPCH,] and/or FACH resources, unless the UE is using dedicated resources (DCH, [TDD - USCH,] and/or DSCH) in the DRNS in which case the DRNC shall release only the C-RNTI and all its related RACH, [FDD - CPCH,] and/or FACH resources allocated for the UE.

8.4.2.3 Abnormal Conditions

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8.5 Global Procedures

8.5.1 Error Indication

8.5.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in a received message, provided they cannot be reported by an appropriate response message.

This procedure shall use the signalling bearer mode specified below.

8.5.1.2 Successful Operation



Figure 30: Error Indication procedure, Successful Operation

When the conditions defined in clause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node. This message shall use the same mode of the signalling bearer and the same signalling bearer connection (if connection oriented) as the message that triggers the procedure.

When the ERROR INDICATION message is sent from a DRNC to an SRNC using connectionless mode of the signalling bearer, the *S-RNTI* IE shall be included in the message if the UE Context addressed by the *D-RNTI* IE which was received in the message triggering the Error Indication procedure exists. When the ERROR INDICATION message is sent from an SRNC to a DRNC using connectionless mode of the signalling bearer, the *D-RNTI* IE shall be included in the message if available.

When a message using connectionless mode of the signalling bearer is received in the DRNC and there is no UE Context in the DRNC as indicated by the *D-RNTI* IE, the DRNC shall include the D-RNTI from the received message in the *D-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

When a message using connectionless mode of the signalling bearer is received in the SRNC and there is no UE in the SRNC as indicated by the *S-RNTI* IE, the SRNC shall include the S-RNTI from the received message in the *S-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE, or both the *Cause* IE and the *Criticality Diagnostics* IE to indicate the reason for the error indication.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

8.5.1.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the error indication procedure as specified in section 8.5.1.2.

8.5.1.3 Abnormal Conditions

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8.5.2 Common Measurement Initiation

8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC₁ and the RNC to which the request is sent is referred to as RNC₂.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.2.2 Successful Operation

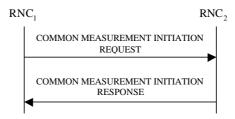


Figure 30A: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC₁ to the RNC₂.

Upon receipt, the RNC₂ shall initiate the requested measurement according to the parameters given in the request.

Unless specified below, the meaning of the parameters are given in other specifications.

[TDD- If the [3.84 Mcps TDD - *Time Slot* IE] [1.28 Mcps - *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message , the measurement request shall apply to the requested time slot individually.]

Common measurement type

If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then:

- The RNC₂ shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by the *Reference Cell Identifier* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-ID*) in the *Neighbouring Cell Measurement Information* IE.
- [3.84 Mcps TDD The RNC₂ shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neigbouring TDD Cell Measurement Information* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type* IE in the *Neigbouring TDD Cell Measurement Information* IE, If *Time Slot* IE and *Midamble Shift And Burst Type* IE are not available in the *Neighbouring TDD Cell Measurement Information* IE, the RNC₂ may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

If the Common Measurement Type IE is set to "load", the RNC₂ shall initiate measurements of uplink and downlink load on the measured object identified by the Reference Cell Identifier IE. If either uplink or downlink load satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", "transmitted carrier power", "received total wide band power", or "UL timeslot ISCP" the RNC₂ shall initiate measurements on the measured object identified by the *Reference Cell Identifier* IE.

If the *Common Measurement Type* IE is set to "RT load", the RNC₂ shall initiate measurements of uplink and downlink estimated share of RT (Real Time) traffic of the load of the measured object. If either uplink or downlink RT load satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink measurements.

If the Common Measurement Type IE is set to "NRT load Information", the RNC $_2$ shall initiate measurements of uplink and downlink NRT (Non Real Time) load situation on the measured object. If either uplink or downlink NRT load satisfies the requested report characteristics, the RNC $_2$ shall report the result of both uplink and downlink measurements.

Report characteristics

The Report Characteristics IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the RNC₂ shall report the result of the requested measurement immediately in the COMMON MEASUREMENT INITIATION RESPONSE message. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Periodic" and if the *SFN* IE is not provided, the RNC₂ shall immediately and periodically initiate a Common Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *SFN* IE is provided, the RNC₂ shall initiate a Common Measurement Reporting procedure for this measurement at the SFN indicated in the *SFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Event A", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, the RNC₂ shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this fall occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event,, the RNC₂ shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event E", the RNC₂shall initiate the Common Measurement Reporting procedure when the measured entity rises above the *Measurement Threshold 1* IE and stays above the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the RNC₂ shall initiate the Common Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity falls below the *Measurement Threshold 2* IE and stays below the threshold for the *Measurement Hysteresis Time* IE, the RNC₂ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the RNC₂ shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the *Measurement Threshold 1* IE and stays below the threshold for the *Measurement Hysteresis Time* IE (Report A). When the conditions for Report A are met and if the *Report Periodicity* IE is provided, the RNC₂ shall initiate the Measurement Reporting procedure periodically with the requested report frequency specified by the *Report Periodicity* IE. If the conditions for Report A have been met and the measured entity rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE,

the RNC₂ shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the RNC₂ shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the RNC₂ shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the first measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE. Following the first measurement report, the RNC₂ shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

- 1. If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":
 - If the $T_{UTRAN-GPS}$ Change Limit IE is included in the $T_{UTRAN-GPS}$ Measurement Threshold Information IE, the RNC₂ shall calculate the change of $T_{UTRAN-GPS}$ value (F_n) each time a new measurement result is received after point C in the measurement model [25]. The RNC₂ shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GPS}$ Change Limit IE. The change of $T_{UTRAN-GPS}$ value (F_n) is calculated according to the following:

$$F_n=0$$
 for $n=0$

 F_n is the change of the $T_{UTRAN-GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_{n-1} is the previous measurement result received after point C in the measurement model [25], measured at SFN_{n-1}.

 M_I is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

 M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the *Predicted T_{UTRAN-GPS} Deviation Limit* IE is included in the *T_{UTRAN-GPS} Measurement Threshold Information* IE, the RNC₂ shall update the P_n and F each time a new measurement result is received after point C in the measurement model [25]. The RNC₂ shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted T_{UTRAN-GPS} Deviation Limit* IE. The P_n and F_n are calculated according to the following:

```
P_n = b for n = 0
```

```
P_n = ((a/16)*((SFN_n - SFN_{n-1}) \ mod\ 4096)/100 + ((SFN_n - SFN_{n-1}) \ mod\ 4096)*10*3.84*10^3*16 + P_{n-1}) \ mod\ 37158912000000 \ for\ n>0
```

```
F_n = min((M_n - P_n) \mod 37158912000000, (P_n - M_n) \mod 37158912000000) for n > 0
```

 P_n is the predicted $T_{UTRAN-GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported $T_{UTRAN-GPS}$ Drift Rate value.

b is the last reported $T_{UTRAN-GPS}$ value.

 F_n is the deviation of the last measurement result from the predicted $T_{\rm UTRAN\text{-}GPS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25, measured at SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GPS}$ Drift Rate is determined by the RNS₂ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

- 2. If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference":
 - If the SFN-SFN Change Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the RNC₂ shall calculate the change of SFN-SFN value (F_n) each time a new measurement result is received after point C in the measurement model [25]. The RNC₂ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the SFN-SFN Change Limit IE. The change of the SFN-SFN value is calculated according to the following:

```
F_n = 0 for n = 0

[FDD - F_n = (M_n - a) \mod 614400 for n > 0]

[TDD - F_n = (M_n - a) \mod 40960 for n > 0]
```

 F_n is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the Predicted SFN-SFN Deviation Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the RNC₂ shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The RNC₂ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the Predicted SFN-SFN Deviation Limit IE. The P_n and F_n are calculated according to the following:

```
\begin{split} P_n &= b \;\; for \, n = 0 \\ &[\text{FDD -} P_n = ((a/16) * ((SFN_n - SFN_{n-l}) \; mod \; 4096)/100 + \; P_{n-l} \;) \; mod \; 614400 \quad for \;\; n > 0] \\ &[\text{FDD -} F_n = \min((M_n - P_n) \; mod \; 614400, \; (P_n - M_n) \; mod \; 614400) \quad for \; n > 0] \\ &[\text{TDD -} P_n = ((a/16) * (15*(SFN_n - SFN_{n-l}) mod \; 4096 + (TS_n - TS_{n-l}))/1500 + P_{n-l} \;) \; mod \; 40960 \; for \;\; n > 0] \\ &[\text{TDD -} F_n = \min((M_n - P_n) \; mod \; 40960, \; (P_n - M_n) \; mod \; 40960) \quad for \; n > 0] \end{split}
```

 P_n is the predicted SFN-SFN value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN Drift Rate value.

b is the last reported SFN-SFN value.

 F_n is the deviation of the last measurement result from the predicted SFN-SFN value (P_n) when n measurements ha<u>ves</u> been received after first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at the [TDD - the Time Slot TS_n of] the Frame SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the RNS₂ in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

If the *Report Characteristics* IE is not set to "On Demand", the RNC₂ is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more, the RNC₂ shall terminate the measurement locally without reporting this to RNC₁.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the RNC₂ shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Common measurement accuracy

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC₂ shall use the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE included in the *Report Characteristics* IE according to the following:.

- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class A", then the concerned RNC₂ shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates the "Class B", then the concerned RNC₂ shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class C", then the concerned RNC₂ shall perform the measurements with the highest supported accuracy according to class C.
- If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the concerned RNC₂ shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1 - a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

 F_{n-1} is the old filtered measurement result

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

 $a = 1/2^{(k/2)}$ -, where k is the parameter received in the *Measurement Filter Coefficient IE*. If the *Measurement Filter Coefficient IE* is not present, a shall be set to 1 (no filtering).

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Response message

If the RNC₂ was able to initiate the measurement requested by RNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message.

In the case in which the Report Characteristics IE is set to "On-Demand" or "On Modification":

- The COMMON MEASUREMENT INITIATION RESPONSE message shall <u>include the Common Measurement</u> <u>Object Type IE</u> containing the measurement result. It shall also include the <u>Common Measurement Achieved</u> <u>Accuracy IE</u> if the <u>Common Measurement Type IE</u> is set to 'UTRAN GPS Timing of Cell Frame for UE positioning'.

- If the Common Measurement Type IE is not set to "SFN-SFN Observed Time Difference" and if the SFN Reporting Indicator IE is set to "FN Reporting Required", then the RNC₂ shall include the SFN IE in the COMMON MEASUREMENT INITIATION RESPONSE message,. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then the SFN Reporting Indicator IE is ignored.
- If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then the RNC₂ shall report all the available measurements in the Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE, and the RNC₂ shall report the neighbouring cells with no measurement result available in the Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE. For all available measurement results, the RNC₂ shall include in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE, if available.
- If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the Report Characteristics IE is set to "On Demand" or "On Modification", the RNC₂ shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.5.2.2.1 Successful Operation for lur-g

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC₁ to the BSS₂ or from the BSS₁ to the RNC₂/BSS₂.

Upon receipt, the RNC₂ /BSS₂ shall initiate the requested measurement according to the parameters given in the request.

Common measurement type on Iur-g

If the Common Measurement Type IE is set to "load", the RNC_2/BSS_2 shall initiate measurements and report results as described in section 8.5.2.2.

If the Common Measurement Type IE is set to "RT load", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

Report characteristics on Iur-g

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. This IE is used as described in section 8.5.2.2.

Response message for Iur-g

If the RNC₂/BSS₂ was able to initiate the measurement requested by RNC₁/BSS₁ it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On-Demand", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.

8.5.2.3 Unsuccessful Operation

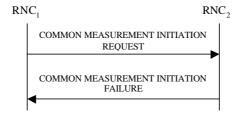


Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the RNC₂ shall send a COMMON MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the COMMON MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Measurement not supported for the object.
- Measurement Temporarily not Available

8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frame for UE positioning", but the $T_{UTRAN-GPS}$ Measurement Minimum Accuracy Class IE in the Common Measurement Accuracy IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is not set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the Common Measurement Accuracy IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type indicated in the COMMON MEASUREMENT INITIATION REQUEST message the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", but the Neighbouring Cell Measurement Information IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC_2 shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

Table 5: Allowed Common Measurement Type and Report Characteristics Type Combinations

| Common | Report characteristics type | | | | | | | | |
|--|-----------------------------|----------|------------|------------|------------|------------|------------|------------|--------------------|
| measurement type | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| Received total wide band power | X | X | X | X | X | X | X | Х | |
| Transmitted Carrier Power | X | X | X | X | X | X | X | Х | |
| UL Timeslot ISCP | X | Χ | Χ | Χ | Χ | Χ | Χ | Χ | |
| Load | X | Χ | Χ | Χ | Χ | Χ | Χ | Χ | |
| UTRAN GPS Timing of Cell Frames for UE Positioning | X | X | | | | | | | X |
| SFN-SFN Observed Time Difference | Х | X | | | | | | | X |
| RT load | X | Χ | Χ | Χ | Χ | Χ | Χ | Χ | |
| NRT load Information | Х | X | Х | Х | Х | Х | Х | Х | |

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD - *Time Slot IE*] [1.28Mcps TDD – *Time Slot LCR* IE] is not provided in the COMMON MEASUREMENT INITIATION REQUEST message the RNS₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the RNS₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

8.5.2.4.1 Abnormal Conditions for lur-g

The measurements which can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X".

Table 6: Allowed Common measurement type on lur and lur-g interfaces

| Common Measurement Type | Int | erface |
|--------------------------------|-----|--------|
| | lur | lur-g |
| Received total wide band power | Х | |
| Transmitted Carrier Power | X | |
| UL Timeslot ISCP | X | |
| Load | X | X |
| UTRAN GPS Timing of Cell | Х | |
| Frames for LCS | | |
| SFN-SFN Observed Time | X | |
| Difference | | |
| RT load | Х | X |
| NRT load Information | X | X |

If the RNC₂ receives from the BSS₁ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the RNC₂ shall reject the Common Measurement Initiation procedure.

If the BSS_2 receives from the BSS_1 / RNC₁ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the BSS_2 shall reject the Common Measurement Initiation procedure.

If the RNC₂ receives from the BSS₁ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the RNC₂ shall ignore that IE.

If the BSS_2 receives from the BSS_1 / RNC₁ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the BSS_2 shall ignore that IE.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table in section 8.5.2.4 marked with "X". For not allowed combinations, the RNC₂/BSS₂ shall reject the Common Measurement Initiation procedure.

8.5.3 Common Measurement Reporting

8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.3.2 Successful Operation



Figure 30C: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the RNC₂ shall initiate the Common Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref. [23] and [24]), the *Common Measurement Value Information* IE shall indicate Measurement not Available.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the RNC₂ shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC₂ shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.5.3.2.1 Successful Operation for lur-g

If the requested measurement reporting criteria are met, the RNC₂/BSS₂ shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement ID* IE shall be set to the Common Measurement ID provided by RNC₁/BSS₁ when initiating the measurement with the Common Measurement Initiation procedure.

If the Common measurement type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was "SFN-SFN Observed Time Difference", then RNC₂ shall include in the COMMON MEASUREMENT REPORT all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and shall include the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the Common measurement type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was not set to "SFN-SFN Observed Time Difference" and the SFN Reporting Indicator when initiating the measurement was set to "FN Reporting Required", the RNC₂ shall include the SFN IE in the COMMON MEASUREMENT REPORT message. The reported SFN shall be the SFN at the time when the measurement value was

reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

8.5.3.3 Abnormal Conditions

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8.5.4 Common Measurement Termination

8.5.4.1 General

This procedure is used by an RNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.4.2 Successful Operation



Figure 30D: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon receipt, RNC_2 shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

8.5.4.2.1 Successful Operation for lur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Common Measurement Termination procedure as specified in section 8.5.4.2.

8.5.4.3 Abnormal Conditions

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8.5.5 Common Measurement Failure

8.5.5.1 General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.5.2 Successful Operation



Figure 30E: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from RNC₂ to RNC₁ to inform the RNC₁ that a previously requested measurement can no longer be reported. RNC₂ has locally terminated the indicated measurement. The RNC₂ shall include in the DEDICATED MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

8.5.5.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Common Measurement Failure procedure as specified in section 8.5.5.2.

8.5.5.3 Abnormal Conditions

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8.5.6 Information Exchange Initiation

8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.6.2 Successful Operation

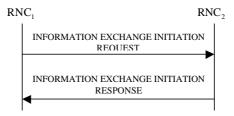


Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC₁ to RNC₂.

Upon receipt, the RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

The Information Report Characteristics IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the RNC₂ shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the RNC₂ shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On Modification", the RNC₂ shall report the requested information immediately if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the RNC₂ shall initiate the Information Reporting procedure when the requested information becomes available. The RNC₂ shall then initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC₂ shall initiate the Information Reporting procedure when any change in the parameters occurs.

- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC₂ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the Information Type Item IE is set to "GPS Information" and the GPS Information Item IE includes "GPS UTC Model", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN_t parameter.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the *Information Type* IE is set to "Cell Capacity Class", the RNC₂ shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink cell capacity information.
- If any of the above *Information Type* IEs becomes temporarily unavailable, the RNC₂ shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the RNC₂ shall initiate the Information Reporting procedure for this specific Information.

Response message:

If the RNC₂ is able to determine the information requested by the RNC₁, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE if the data are available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

8.5.6.2.1 Successful Operation for lur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from BSS₁ to BSS₂/RNC₂ or by RNC₁ to BSS₂.

Upon receipt, the BSS₂/RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics on Iur-g:

If the *Information Type Item* IE is set to "Cell Capacity Class", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

8.5.6.3 Unsuccessful Operation



Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation

If the requested Information Type received in the *Information Type* IE indicates a type of information that RNC_2 cannot provide, the RNC_2 shall reject the Information Exchange Initiation procedure.

If the requested information provision cannot be accessed, the RNC₂ shall reject the procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The message shall include the *Information Exchange ID* IE set to the same value that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Information temporarily not available.
- Information Provision not supported for the object.

8.5.6.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC₂ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The allowed combinations of the Information type and Information Report Characteristics type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Information Exchange Initiation procedure using the INFORMATION EXCHANGE INITIATION FAILURE message.

Table 6a: Allowed Information Type and Information Report Characteristics type combinations

| Туре | Information Report Chara | | acteristics Type |
|---|--------------------------|----------|------------------|
| | On Demand | Periodic | On Modification |
| UTRAN Access Point Position with Altitude Information | Х | | |
| UTRAN Access Point Position | Х | | |
| IPDL Parameters | X | Х | Х |
| GPS Information | X | X | X |
| DGPS Corrections | X | X | X |
| GPS RX Pos | X | | |
| SFN-SFN Measurement Reference Point Position | X | | |
| Cell Capacity Class | X | | X |

8.5.6.4.1 Abnormal Conditions for lur-g

The information types that can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X". For information types that are not applicable on the Iur-g interface, the BSS shall reject the Information Exchange Initiation procedure.

Table 7: Allowed Information types on lur and lur-g interfaces

| Information Type | Inte | erface |
|---|------|--------|
| · | lur | lur-g |
| UTRAN Access Point Position with Altitude Information | Х | |
| UTRAN Access Point Position | X | |
| IPDL Parameters | X | |
| DGPS Corrections | X | |
| GPS Information | X | |
| GPS RX Pos | X | |
| SFN-SFN Measurement | X | |
| Reference Point Position | | |
| Cell Capacity Class | X | Χ |

8.5.7 Information Reporting

8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.7.2 Successful Operation



Figure 30H: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the RNC₂ shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

The Requested Data Value IE shall include at least one IE containing the data to be reported.

8.5.7.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Information Reporting procedure as specified in section 8.5.7.2.

8.5.7.3 Abnormal Conditions

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8.5.8 Information Exchange Termination

8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.8.2 Successful Operation



Figure 30I: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon receipt, the RNC₂ shall terminate the information exchange corresponding to the *Information Exchange ID* IE provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

8.5.8.2.1 Successful Operation for lur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Information Exchange Termination procedure as specified in section 8.5.8.2.

8.5.8.3 Abnormal Conditions

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8.5.9 Information Exchange Failure

8.5.9.1 General

This procedure is used by a RNC to notify another that the information exchange it previously requested using the Information Exchange Initiation can no longer be reported.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

8.5.9.2 Successful Operation



Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC₂ to the RNC₁, to inform the RNC₁ that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The RNC₂ shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure, and the RNC₂ shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

8.5.9.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

8.5.10 Reset

8.5.10.1 General

The purpose of the reset procedure is to align the resources in RNC₁ and RNC₂ in the event of an abnormal failure.

The procedure uses connectionless signalling.

8.5.10.2 Successful Operation

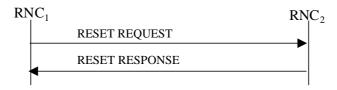


Figure 30K: Reset procedure, Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the RNC₁ to the RNC₂.

If the *Reset Indicator* IE is set to "Context", then:

- For all indicated UE Contexts identified by the S-RNTI IE, the RNC $_2$ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC $_2$ shall take actions according to Annex D.2.
- For all indicated UE Contexts identified by the D-RNTI IE, the RNC $_2$ in the role of SRNC, shall remove the information related to the RNC $_1$ for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

If the *Reset Indicator* IE is set to "Context Group", then:

- For all indicated UE Context Groups identified by the *S-RNTI Group* IE, the RNC₂ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.

If the Reset Indicator IE is set to "All Contexts", then the RNC₂ shall:

- In the role of DRNC, remove all the UE Contexts for which the RNC₁ is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.
- In the role of SRNC, remove the information related to the RNC_1 for all the UE Contexts and all the radio resources allocated for these UE Contexts.

For all the removed UE Contexts and for all the UE Contexts for which the RNC_2 has removed information related to the RNC_1 , the RNC_2 shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the RNC_2 shall return the RESET RESPONSE message to the RNC_1 .

8.5.10.3 Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

9 Elements for RNSAP Communication

9.1 Message Functional Definition and Content

9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, in which the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

| M | IEs marked as Mandatory (M) shall always be included in the message. |
|---|--|
| 0 | IEs marked as Optional (O) may or may not be included in the message. |
| С | IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE shall not be included. |

In the case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. Each group may be also repeated within one message. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

9.1.2.2 Criticality

Each information element or Group of information elements may have criticality information applied to it. Following cases are possible:

| _ | No criticality information is applied explicitly. |
|--------|---|
| YES | Criticality information is applied. 'YES' is usable only for non-repeatable information elements. |
| GLOBAI | The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements. |
| EACH | Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements. |

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3 RADIO LINK SETUP REQUEST

9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------------|-------|------------------------------------|----------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | 10,000 |
| SRNC-ID | M | | RNC-ID 9.2.1.50 | | YES | reject |
| S-RNTI | М | | 9.2.1.53 | | YES | reject |
| D-RNTI | 0 | | 9.2.1.24 | | YES | reject |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL DPCH Information | | 1 | 0.2.1.2 | | YES | reject |
| >UL Scrambling Code | М | , | 9.2.2.53 | | - | 10,000 |
| >Min UL Channelisation | M | | 9.2.2.25 | | _ | |
| Code Length | I IVI | | 0.2.2.20 | | | |
| >Max Number of UL DPDCHs | C - CodeLen | | 9.2.2.24 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | For the UL. | | |
| >TFCS | M | | TFCS for | FOI THE OL. | _ | |
| >1FC5 | IVI | | the UL | | _ | |
| LII DDOOLLOL (E | | | 9.2.1.63 | | | |
| >UL DPCCH Slot Format | M | - | 9.2.2.52 | | _ | |
| >Uplink SIR Target | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Diversity mode | M | | 9.2.2.8 | | _ | |
| >SSDT Cell Identity Length | 0 | | 9.2.2.41 | | _ | |
| >S Field Length | 0 | | 9.2.2.36 | | _ | |
| >DPC Mode | 0 | | 9.2.2.12A | | YES | reject |
| DL DPCH Information | | 1 | | | YES | reject |
| >TFCS | M | | TFCS for the DL. 9.2.1.63 | | _ | |
| >DL DPCH Slot Format | M | | 9.2.2.9 | | _ | |
| >Number of DL | M | | 9.2.2.9 9.2.2.26A | | _ | |
| Channelisation Codes | IVI | | 9.2.2.20A | | _ | |
| | M | | 9.2.2.46 | | | |
| >TFCI Signalling Mode >TFCI Presence | C- | | 9.2.2.46 | | _ | |
| | SlotFormat | | | | _ | |
| >Multiplexing Position | M | | 9.2.2.26 | | _ | |
| >Power Offset Information | | 1 | <u> </u> | - " | _ | |
| >>PO1 | M | | Power Offset 9.2.2.30 | Power offset for the TFCI bits. | _ | |
| >>PO2 | М | | Power Offset 9.2.2.30 | Power offset for the TPC bits. | _ | |
| >>P03 | M | | Power Offset 9.2.2.30 | Power offset for the pilot bits. | _ | |
| >FDD TPC Downlink Step Size | М | | 9.2.2.16 | | _ | |
| >Limited Power Increase | M | | 9.2.2.21A | | _ | |
| >Inner Loop DL PC Status | М | | 9.2.2.21a | | _ | |
| >Split Type | 0 | | 9.2.2.39a | | YES | reject |
| >Length of TFCI2 | 0 | | 9.2.2.21C | | YES | reject |
| DCH Information | М | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DSCH Information | 0 | | DSCH FDD Information | | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|--------------------------|---------------------------------|--|--------------------------|-------------|-------------------------|
| | | | 9.2.2.13A | | | |
| RL Information | | 1 <maxn oofRLs></maxn | | | EACH | notify |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >C-ID | М | | 9.2.1.6 | | _ | |
| >First RLS Indicator | М | | 9.2.2.16A | | _ | |
| >Frame Offset | М | | 9.2.1.30 | | _ | |
| >Chip Offset | М | | 9.2.2.1 | | _ | |
| >Propagation Delay | 0 | | 9.2.2.33 | | _ | |
| >Diversity Control Field | C – NotFirstRL | | 9.2.1.20 | | _ | |
| >Initial DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Primary CPICH Ec/No | 0 | | 9.2.2.32 | | _ | |
| >SSDT Cell Identity | 0 | | 9.2.2.40 | | _ | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | - | |
| >SSDT Cell Identity for EDSCHPC | C- EDSCHPC | | 9.2.2.40A | | YES | ignore |
| >Enhanced Primary CPICH Ec/No | 0 | | 9.2.2.131 | | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >Qth Parameter | 0 | | 9.2.2.34a | | YES | ignore |
| Transmission Gap Pattern Sequence Information | 0 | | 9.2.2.47A | | YES | reject |
| Active Pattern Sequence Information | 0 | | 9.2.2.A | | YES | reject |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| DL Power Balancing Information | 0 | | 9.2.2.10A | | YES | ignore |
| HS-DSCH Information | 0 | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-PDSCH RL ID | C – InfoHSDS CH | | RL ID 9.2.1.49 | | YES | reject |
| UE Support Of Dedicated Pilots For Channel Estimation | 0 | | 9.2.2.50A | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | 0 | | 9.2.2.50B | | YES | ignore |

| Condition | Explanation |
|----------------|--|
| CodeLen | The IE shall be present if <i>Min UL Channelisation Code length</i> IE equals to 4 |
| SlotFormat | The IE shall be present if the <i>DL DPCH Slot Format</i> IE is equal to any of the values from 12 to 16. |
| NotFirstRL | The IE shall be present if the RL is not the first one in the RL Information IE. |
| Diversity mode | The IE shall be present if <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> IE is not equal to "none". |
| EDSCHPC | This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Information IE. |
| InfoHSDSCH | This IE shall be present if HS-DSCH Information IE is present. |

| Range bound | Explanation | | | |
|-------------|-----------------------------------|--|--|--|
| maxnoofRLs | Maximum number of RLs for one UE. | | | |

9.1.3.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|-----------------------------|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | , |
| SRNC-ID | М | | RNC-ID 9.2.1.50 | | YES | reject |
| S-RNTI | М | | 9.2.1.53 | | YES | reject |
| D-RNTI | 0 | | 9.2.1.24 | | YES | reject |
| UL Physical Channel Information | | 1 | | | YES | reject |
| >Maximum Number of Timeslots | М | | 9.2.3.3A | For the UL | _ | |
| >Minimum Spreading Factor | М | | 9.2.3.4A | For the UL | _ | |
| >Maximum Number of UL Physical Channels per Timeslot | М | | 9.2.3.3B | | _ | |
| >Support of 8PSK | 0 | | 9.2.3.7H | Applicable to 1.28Mcps TDD only | YES | ignore |
| DL Physical Channel | | 1 | | | YES | reject |
| Information | | | | | | |
| >Maximum Number of Timeslots | М | | 9.2.3.3A | For the DL | _ | |
| >Minimum Spreading Factor | М | | 9.2.3.4A | For the DL | _ | |
| >Maximum Number of DL Physical Channels | М | | 9.2.3.3C | | - | |
| >Maximum Number of DL Physical Channels per Timeslot | 0 | | 9.2.3.3D | | YES | ignore |
| >Support of 8PSK | 0 | | 9.2.3.7H | Applicable to 1.28Mcps TDD only | YES | ignore |
| Allowed Queuing Time | 0 | | 9.2.1.2 | , | YES | reject |
| UL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH and USCH | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >TFCS | М | | 9.2.1.63 | For the UL. | _ | |
| >TFCI Coding | М | | 9.2.3.11 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | | _ | |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | reject |
| DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH and DSCH | EACH | notify |
| >CCTrCH ID | M | 3/ | 9.2.3.2 | | _ | |
| >TFCS | M | 1 | 9.2.3.2 | For the DL. | | |
| >TFCI Coding | M | | 9.2.1.63 | I OI IIIC DL. | | |
| >Puncture Limit | M | | 9.2.3.11 | | _ | |
| >TDD TPC Downlink Step | M | | 9.2.3.10 | | | |
| Size >TPC CCTrCH List | | 0 <maxno CCTrCHs></maxno | | List of uplink CCTrCH which provide TPC | _ | |
| >>TPC CCTrCH ID | М | | CCTrCH ID 9.2.3.2 | | _ | |
| DCH Information | 0 | | DCH TDD | | YES | reject |

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| | | | Information | | | |
|---------------------------------------|-----------------------|----|--|--|-----|--------|
| DSCH Information | 0 | | 9.2.3.2A DSCH | | YES | reject |
| | | | TDD Information 9.2.3.3a | | | |
| USCH Information | 0 | | 9.2.3.15 | | YES | reject |
| RL Information | | 1 | 0.2.00 | | YES | reject |
| >RL ID | М | | 9.2.1.49 | | _ | ., |
| >C-ID | М | | 9.2.1.6 | | _ | |
| >Frame Offset | М | | 9.2.1.30 | | _ | |
| >Special Burst Scheduling | М | | 9.2.3.7D | | _ | |
| >Primary CCPCH RSCP | 0 | | 9.2.3.5 | | _ | |
| >DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Applicable to 3.84Mcps TDD only | - | |
| >DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | reject |
| >TSTD Support Indicator | 0 | | 9.2.3.13F | Applicable to 1.28Mcps TDD only | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.13J | | _ | |
| >>Uplink Synchronisation Frequency | М | | 9.2.3.131 | | _ | |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| HS-DSCH Information | 0 | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-PDSCH RL ID | C - InfoHSDS CH | | RL ID 9.2.1.49 | | YES | reject |
| PDSCH-RL-ID | 0 | | RL ID 9.2.1.49 | | YES | ignore |

| Condition | Explanation | | | | | |
|------------|--|--|--|--|--|--|
| InfoHSDSCH | This IE shall be present if HS-DSCH Information IE is present. | | | | | |

| Range bound | Explanation |
|----------------|--------------------------------------|
| maxnoofCCTrCHs | Maximum number of CCTrCH for one UE. |

9.1.4 RADIO LINK SETUP RESPONSE

9.1.4.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|----------------------------------|--|---|-------------|-------------------------|
| Manager Trus | 1.4 | | Reference | | VE0. | : |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| RL Information Response | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >RL Set ID | M | | 9.2.2.35 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >Received Total Wide Band Power | М | | 9.2.2.35A | | _ | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | - | |
| >CHOICE Diversity | M | | | | - | |
| Indication | | | | | | |
| >>Combining | . | | | | _ | |
| >>>RL ID | M | | 9.2.1.49 | Reference RL ID for the combining | _ | |
| >>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>Non Combining or First RL | | | | | - | |
| >>>DCH Information Response | M | | 9.2.1.16A | | _ | |
| >SSDT Support Indicator | M | | 9.2.2.43 | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | _ | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | - | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Primary Scrambling Code | 0 | | 9.2.1.45 | | _ | |
| >UL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | _ | |
| >DL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | _ | |
| >Primary CPICH Power | M | | 9.2.1.44 | | | |
| >DSCH Information Response | 0 | | DSCH FDD Information Response | | YES | ignore |

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--|--------------------------|-------------|-------------------------|
| | | | 9.2.2.13B | | | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >PC Preamble | М | | 9.2.2.27a | | _ | |
| >SRB Delay | М | | 9.2.2.39A | | _ | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >HS-DSCH Information Response | 0 | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| Uplink SIR Target | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | 0 | · | 9.2.1.13 | - | YES | ignore |
| DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |

| Range bound | Explanation | | | |
|-------------|-----------------------------------|--|--|--|
| maxnoofRLs | Maximum number of RLs for one UE. | | | |

9.1.4.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------|----------|---|-----------------------------|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | -, |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| RL Information Response | | 01 | | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info | М | | 9.2.3.13D | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR | | _ | · |
| | | | 9.2.1.69 | | | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | - | |
| >Maximum Allowed UL Tx | M | | 9.2.1.09 | | _ | |
| Power | | | | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nt in ref. [7] | _ | |
| >Cell Parameter ID | 0 | | 9.2.1.8 | | _ | |
| >Sync Case | 0 | | 9.2.1.54 | | _ | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | _ | |
| >SCTD Indicator | 0 | | 9.2.1.78 | | _ | |
| >PCCPCH Power | M | | 9.2.1.43 | | _ | |
| >Timing Advance Applied | М | | 9.2.3.12A | | _ | |
| >Alpha Value | M | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | М | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info TDD | 0 | | 9.2.3.7B | | _ | |
| >UL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | | |
| >>UL DPCH Information | | 01 | | | YES | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | М | | 9.2.3.13C | | _ | |
| >>Uplink SIR Target CCTrCH | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| >DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH Information | | 01 | 1 | 1 | YES | ignore |

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|--|----------|---|--|---|-------------|-------------|
| | | 3 | and | Description | | Criticality |
| | | | Reference | | | |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information | M | | 9.2.3.2C | | | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCH Information Response | | 0 <maxnoof DSCHs></maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>DSCH Flow Control Information | М | | 9.2.1.26B | | | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >USCH Information | | 0 | | | GLOBAL | ignore |
| Response | | <maxnoof USCHs></maxnoof | | | OLOD/ (L | 1911010 |
| >>USCH ID | M | | 9.2.3.14 | | _ | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | ı | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >Time Slot for SCH | C-Case1 | | Time Slot 9.2.1.56 | | YES | ignore |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >HS-DSCH Information Response | 0 | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| Uplink SIR Target | М | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | 0 | 1 | 9.2.1.13 | | YES | ignore |
| RL Information Response LCR | | 01 | | Mandatory for 1.28Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >URA Information | M | | 9.2.1.70B | | _ | |
| >SAI | М | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info LCR | М | | 9.2.3.13H | | _ | |
| >Maximum Uplink SIR | M | | Uplink SIR | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------------|----------|---|-----------------------------|------------------------------|-------------|-------------------------|
| | | | 9.2.1.69 | | | |
| >Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nt in ref. | _ | |
| >Cell Parameter ID | 0 | | 9.2.1.8 | [/] | _ | |
| >SCTD Indicator | Ō | | 9.2.1.78 | | _ | |
| >PCCPCH Power | M | | 9.2.1.43 | | _ | |
| >Alpha Value | M | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info TDD LCR | 0 | | 9.2.3.7F | | - | |
| >UL CCTrCH Information LCR | | 0 <maxno ofCCTrCH sLCR></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>UL DPCH Information LCR | | 01 | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information LCR | М | | 9.2.3.13G | | _ | |
| >>Uplink SIR Target CCTrCH | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| >DL CCTrCH Information LCR | | 0 <maxno ofCCTrCH sLCR></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH Information LCR | | 01 | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information LCR | М | | 9.2.3.2E | | | |
| >>>TSTD Indicator | M | | 9.2.3.13E | | _ | |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCH Information Response LCR | | 0 <maxnoof DSCHsLC R></maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>DSCH Flow Control Information | М | | 9.2.1.26B | | _ | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >USCH Information Response LCR | | 0 <maxnoof USCHsLC R></maxnoof | | | GLOBAL | ignore |
| >>USCH ID | M | 11/ | 9.2.3.14 | | _ | |
| //UUUI ID | IVI | 1 | 3.2.3.14 | I . | | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--|--------------------------|-------------|-------------------------|
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >HS-DSCH Information Response LCR | 0 | | HS-DSCH TDD Information Response 9.2.3.3ab | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >Uplink Timing Advance Control LCR | М | | 9.2.3.13K | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| DSCH RNTI | 0 | • | 9.2.1.26Ba | | YES | ignore |

| Condition | Explanation |
|-----------|---|
| Case2 | The IE shall be present if Sync Case IE is equal to "Case2". |
| Case1 | This IE shall be present if Sync Case IE is equal to "Case1". |

| Range bound | Explanation |
|-------------------|---|
| maxnoofDSCHs | Maximum number of DSCHs for one UE for 3.84Mcps TDD. |
| maxnoofUSCHs | Maximum number of USCHs for one UE for 3.84Mcps TDD. |
| maxnoofCCTrCHs | Maximum number of CCTrCH for one UE for 3.84Mcps TDD. |
| maxnoofDSCHsLCR | Maximum number of DSCHs for one UE for 1.28Mcps TDD. |
| maxnoofUSCHsLCR | Maximum number of USCHs for one UE for 1.28Mcps TDD. |
| maxnoofCCTrCHsLCR | Maximum number of CCTrCH for one UE for 1.28Mcps TDD. |

9.1.5 RADIO LINK SETUP FAILURE

9.1.5.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|--|---|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | 10,000 |
| D-RNTI | O | | 9.2.1.24 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| | | | 9.2.1.11 | | | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | M | | 0045 | | _ | |
| >>Cause | IVI | | 9.2.1.5 | | _ | |
| >RL Specific >>Unsuccessful RL | | | | | | |
| | | 1 <maxno< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxno<> | | | EACH | ignore |
| Information Response | | ofRLs> | | | | |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| >>Successful RL Information Response | | 0 <maxno ofRLs-1></maxno | | | EACH | ignore |
| >>>RL ID | М | | 9.2.1.49 | | _ | |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>URA Information | 0 | | 9.2.1.70B | | _ | |
| >>>SAI | M | | 9.2.1.52 | | _ | |
| >>Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >>>UTRAN Access Point | 0 | | 9.2.1.70A | | | |
| Position | | | | | _ | |
| >>>Received Total Wide Band Power | M | | 9.2.2.35A | | _ | |
| >>>Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >>>DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | _ | |
| >>>CHOICE Diversity Indication | М | | | | - | |
| >>>Combining | | | | | _ | |
| >>>>RL ID | М | | 9.2.1.49 | Reference RL ID for the combining | - | |
| >>>>DCH | 0 | | 9.2.1.16A | | YES | ignore |
| Information Response | | | | | | - |
| >>>Non Combining or First RL | | | | | _ | |
| >>>>DCH Information Response | М | | 9.2.1.16A | | _ | |
| >>>SSDT Support Indicator | М | | 9.2.2.43 | | - | |
| >>>Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | - | |
| >>>Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | _ | |
| >>>Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | - | |
| >>>Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Primary CPICH | M | | 9.2.1.21A | | | |
| >>>FIIIIIaly OFION | IVI | 1 | ಶ.∠. I. 44 | | _ | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|--|-------------------------------------|-------------|----------------------|
| | | | Reference | | | |
| Power | | | | | | |
| >>>Primary Scrambling Code | 0 | | 9.2.1.45 | | _ | |
| >>>UL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nu in ref. [6] | _ | |
| >>>DL UARFCN | 0 | | UARFCN 9.2.1.66 | Corresponds to Nd in ref. [6] | _ | |
| >>>DSCH Information Response | 0 | | DSCH FDD Information Response 9.2.2.13B | | YES | ignore |
| >>>Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >>>Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >>>PC Preamble | M | | 9.2.2.27a | | _ | |
| >>>SRB Delay | M | | 9.2.2.39A | | _ | |
| >>>Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >>>DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >>>HS-DSCH Information Response | 0 | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >>>TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >>>HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >>>Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| >>DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| >>HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| Uplink SIR Target | 0 | | Uplink SIR 9.2.1.69 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|-------------|-----------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |

9.1.5.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | _ | |
| >>Cause | M | | 9.2.1.5 | | _ | |
| >RL Specific | | | | | _ | |
| >>Unsuccessful RL Information Response | | 1 | | | YES | ignore |
| >>>RL ID | М | | 9.2.1.49 | | _ | |
| >>>Cause | М | | 9.2.1.5 | | _ | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.6 RADIO LINK ADDITION REQUEST

9.1.6.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|--|------------------------|--|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Uplink SIR Target | М | | Uplink SIR 9.2.1.69 | | YES | reject |
| RL Information | | 1 <maxn oofRLs- 1></maxn | | | EACH | notify |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >Frame Offset | M | | 9.2.1.30 | | _ | |
| >Chip Offset | M | | 9.2.2.1 | | _ | |
| >Diversity Control Field | M | | 9.2.1.20 | | _ | |
| >Primary CPICH Ec/No | 0 | | 9.2.2.32 | | _ | |
| >SSDT Cell Identity | 0 | | 9.2.2.40 | | | |
| >Transmit Diversity Indicator | 0 | | 9.2.2.48 | | _ | |
| >DL Reference Power | 0 | | DL Power 9.2.1.21A | Power on DPCH | YES | ignore |
| >Enhanced Primary CPICH Ec/No | 0 | | 9.2.2.131 | | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >Qth Parameter | 0 | | 9.2.2.34a | | YES | ignore |
| Active Pattern Sequence Information | 0 | | 9.2.2A | Either all the already active Transmission Gap Sequence(s) are addressed (Transmission Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated. | YES | reject |
| DPC Mode | 0 | | 9.2.2.12A | | YES | reject |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |

| Range bound | Explanation | | |
|-------------|---|--|--|
| maxnoofRLs | Maximum number of radio links for one UE. | | |

9.1.6.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--------------------------------|----------------|--|-------------|----------------------|
| | | | Reference | Description | | Orthoding |
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | | . 0,001 |
| RL Information | | 1 | | | YES | reject |
| >RL ID | М | | 9.2.1.49 | | _ | |
| >C-ID | М | | 9.2.1.6 | | _ | |
| >Frame Offset | М | | 9.2.1.30 | | _ | |
| >Diversity Control Field | М | | 9.2.1.20 | | - | |
| >Primary CCPCH RSCP | 0 | | 9.2.3.5 | | _ | |
| >DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Applicable to 3.84Mcps TDD only | - | |
| >DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | reject |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | 0 | | 9.2.1.19Aa | | YES | reject |
| >UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >>Uplink Synchronisation Step Size | M | | 9.2.3.13J | | _ | |
| >>Uplink Synchronisation Frequency | M | | 9.2.3.131 | | - | |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| UL CCTrCH Information | | 0< maxno ofCCTr CHs > | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | - | |
| DL CCTrCH Information | | 0< maxno ofCCTr CHs > | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >TDD TPC Downlink Step Size | 0 | | 9.2.3.10 | | - | |

| Range bound | Explanation |
|----------------|--------------------------------------|
| maxnoofCCTrCHs | Maximum number of CCTrCH for one UE. |

9.1.7 RADIO LINK ADDITION RESPONSE

9.1.7.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--------------------------------------|--|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| RL Information Response | | 1 <maxnoof RLs-1></maxnoof | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >RL Set ID | M | | 9.2.2.35 | | _ | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >Received Total Wide Band Power | M | | 9.2.2.35A | | _ | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >CHOICE Diversity Indication | М | | 9.2.2.14A | | _ | |
| >>Combining | | | | | _ | |
| >>>RL ID | М | | 9.2.1.49 | Reference RL ID | _ | |
| >>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>Non Combining | | | | | _ | |
| >>>DCH Information Response | М | | 9.2.1.16A | | - | |
| >SSDT Support Indicator | М | | 9.2.2.43 | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | - | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >PC Preamble | М | | 9.2.2.27a | | _ | |
| >SRB Delay | М | | 9.2.2.39A | | _ | |
| >Primary CPICH Power | М | | 9.2.1.44 | | _ | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Primary CPICH Usage | 0 | | 9.2.2.32A | | YES | ignore |
| For Channel Estimation | | | | | | |

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation | | | |
|-------------|---|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE. | | | |

9.1.7.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------|----------|--|-----------------------------|---|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.40 | | 163 | reject |
| RL Information Response | IVI | 01 | 5.2.1.39 | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | - | |
| >URA Information | 0 | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info | М | | 9.2.3.13D | | _ | |
| >Minimum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | - | |
| >Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >PCCPCH Power | М | | 9.2.1.43 | | _ | |
| >Timing Advance Applied | M | | 9.2.3.12A | | _ | |
| >Alpha Value | M | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | М | | 9.2.3.7E | | - | |
| >Secondary CCPCH Info TDD | 0 | | 9.2.3.7B | | _ | |
| >UL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>UL DPCH | | 01 | | | YES | ignore |
| Information | | | | | | • |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | М | | 9.2.3.13C | | _ | |
| >DL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>DL DPCH Information | | 01 | | | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | - | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information | М | | 9.2.3.2C | | - | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|-----------------------------|---|-------------|-------------------------|
| >DCH Information | | 01 | Reference | | _ | |
| >>CHOICE Diversity | М | 01 | | | _ | |
| Indication | | | | | | |
| >>>Combining | | | | | _ | |
| >>>RL ID | М | | 9.2.1.49 | Reference RL | _ | |
| >>>DCH Information | 0 | | 9.2.1.16A | | YES | ignore |
| Response | | | | | | |
| >>>Non Combining >>>>DCH | M | | 9.2.1.16A | | _ | |
| Information Response | IVI | | 9.2.1.10A | | _ | |
| >DSCH Information | | 0 | | | GLOBAL | ignore |
| Response | | <maxnoof DSCHs></maxnoof | | | OLOD/ (L | ignoro |
| >>DSCH ID | M | | 9.2.1.26A | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | _ | |
| >>DSCH Flow Control Information | M | | 9.2.1.26B | | - | |
| >>CHOICE Diversity Indication | 0 | | | | _ | |
| >>>Non Combining | | | | | _ | |
| >>>>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >USCH Information Response | | 0 <maxnoof USCHs></maxnoof | | | GLOBAL | ignore |
| >>USCH ID | М | | 9.2.3.14 | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | - | |
| >>CHOICE Diversity Indication | 0 | | | | _ | |
| >>>Non Combining | | | | | _ | |
| >>>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>>>Transport | 0 | | 9.2.1.62 | | _ | |
| Layer Address >Neighbouring UMTS Cell | 0 | | 9.2.1.41A | | _ | |
| Information | | | 004::0 | | | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| Criticality Diagnostics | 0 | 1 | 9.2.1.13 | | YES | ignore |
| RL Information Response LCR | | 01 | | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >URA Information | M | | 9.2.1.70B | | _ | |
| >SAI | M | | 9.2.1.52 | | _ | |
| >Cell GAI | 0 | 1 | 9.2.1.5A | | _ | |
| >UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >UL Time Slot ISCP Info LCR | M | | 9.2.3.13H | | _ | |
| >Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | M | | Uplink SIR | | _ | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|-----------------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| | | | 9.2.1.69 | | | |
| >PCCPCH Power | M | | 9.2.1.43 | | _ | |
| >Maximum Allowed UL Tx Power | M | | 9.2.1.35 | | _ | |
| >Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >Alpha Value | М | | 9.2.3.a | | _ | |
| >UL PhysCH SF Variation | M | | 9.2.3.13B | | _ | |
| >Synchronisation Configuration | M | | 9.2.3.7E | | _ | |
| >Secondary CCPCH Info | 0 | | 9.2.3.7F | | _ | |
| TDD LCR | | | | | | |
| >UL CCTrCH Information LCR | | 0 <maxnoof CCTrCHsLC R></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>UL DPCH | | 01 | | | YES | ignore |
| Information LCR | | | | | | |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>UL Timeslot | M | | 9.2.3.13G | | _ | |
| Information LCR | | | | | | |
| >DL CCTrCH Information LCR | | 0 <maxnoof CCTrCHsLC R></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>DL DPCH | | 01 | | | YES | ignore |
| Information LCR | | | | | |) |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot | M | | 9.2.3.2E | | _ | |
| Information LCR | | | 0.00.405 | | | |
| >>>TSTD Indicator | M | | 9.2.3.13E | | _ | |
| >DCH Information | М | | 9.2.1.16A | | _ | |
| Response >DSCH Information | | 0 | | | GLOBAL | ignore |
| Response LCR | | <maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxnoof<> | | | GLOBAL | ignore |
| Response Lon | | DSCHsLCR | | | | |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>DSCH Flow Control Information | М | | 9.2.1.26B | | _ | |
| >USCH Information | | 0 | | | GLOBAL | ignore |
| Response LCR | | <maxnoof USCHsLCR ></maxnoof | | | | J |
| >>USCH ID | М | | 9.2.3.14 | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | _ | |
| >>CHOICE Diversity Indication | 0 | | | | _ | |
| >>>Non Combining | | | | | _ | |
| >>>>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>>>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|-------|-------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| >Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Uplink Timing Advance Control LCR | M | | 9.2.3.13K | | YES | ignore |

| Range Bound | Explanation |
|-------------------|--|
| maxnoofDSCHs | Maximum number of DSCHs for one UE for 3.84Mcps TDD. |
| maxnoofUSCHs | Maximum number of USCHs for one UE for 3.84Mcps TDD. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for one UE for 3.84Mcps TDD. |
| maxnoofDSCHsLCR | Maximum number of DSCHs for one UE for 1.28Mcps TDD. |
| maxnoofUSCHsLCR | Maximum number of USCHs for one UE for 1.28Mcps TDD. |
| maxnoofCCTrCHsLCR | Maximum number of CCTrCH for one UE for 1.28Mcps TDD. |

9.1.8 RADIO LINK ADDITION FAILURE

9.1.8.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--------------------------------------|--|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | • |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | _ | |
| >>Cause | M | | 9.2.1.5 | | _ | |
| >RL Specific | | | | | _ | |
| >>Unsuccessful RL Information Response | | 1 <maxnoof RLs-1></maxnoof | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | - | |
| >>Successful RL Information Response | | 0 <maxnoof RLs-2></maxnoof | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>URA Information | 0 | | 9.2.1.70B | | _ | |
| >>>SAI | M | | 9.2.1.52 | | _ | |
| >>>Cell GAI | 0 | | 9.2.1.5A | | _ | |
| >>>UTRAN Access Point Position | 0 | | 9.2.1.70A | | _ | |
| >>>Received Total Wide Band Power | М | | 9.2.2.35A | | _ | |
| >>>Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >>>DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >>>CHOICE Diversity Indication | М | | 3.2.2.14/ | | _ | |
| >>>Combining | | | | | _ | |
| >>>>RL ID | М | | 9.2.1.49 | Reference RL ID | _ | |
| >>>>DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >>>Non Combining | | | | | _ | |
| >>>>DCH Information Response | M | | 9.2.1.16A | | _ | |
| >>>SSDT Support Indicator | М | | 9.2.2.43 | | _ | |
| >>>Minimum Uplink SIR | M | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Maximum Uplink SIR | М | | Uplink SIR 9.2.1.69 | | _ | |
| >>>Closed Loop Timing Adjustment Mode | 0 | | 9.2.2.3A | | _ | |
| >>>Maximum Allowed UL Tx Power | М | | 9.2.1.35 | | _ | |
| >>>Maximum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Minimum DL TX Power | М | | DL Power 9.2.1.21A | | _ | |
| >>>Neighbouring UMTS Cell Information | 0 | | 9.2.1.41A | | _ | |
| >>>Neighbouring GSM Cell Information | 0 | | 9.2.1.41C | | _ | |
| >>>Primary CPICH | M | | 9.2.1.44 | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Power | | | | | | |
| >>>PC Preamble | M | | 9.2.2.27a | | _ | |
| >>>SRB Delay | M | | 9.2.2.39A | | _ | |
| >>>Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| >>>DL Power Balancing Activation Indicator | 0 | | 9.2.2.10B | | YES | ignore |
| >>>TFCI PC Support Indicator | 0 | | 9.2.2.46A | | YES | ignore |
| >>>HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >>>Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation | | |
|-------------|---|--|--|
| maxnoofRLs | Maximum number of radio links for one UE. | | |

9.1.8.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | ı | |
| >>Cause | M | | 9.2.1.5 | | ı | |
| >RL Specific | | | | | - | |
| >>Unsuccessful RL Information Response | | 1 | | | YES | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | - | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.9 RADIO LINK DELETION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| RL Information | | 1 <maxno ofRLs></maxno | | | EACH | notify |
| >RL ID | М | | 9.2.1.49 | | _ | |

| Range bound | Explanation | | |
|-------------|--|--|--|
| maxnoofRLs | Maximum number of radio links for one UE | | |

9.1.10 RADIO LINK DELETION RESPONSE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|----------------|--------------------------|-------------|-------------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.11 RADIO LINK RECONFIGURATION PREPARE

9.1.11.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|------------------|--------------------------------------|------------------------------------|--------------------------|-------------|----------------------|
| | | | Reference | | \/50 | . , |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | | |
| Allowed Queuing Time | 0 | 0.4 | 9.2.1.2 | | YES | reject |
| UL DPCH Information | | 01 | 0.0.5 | | YES | reject |
| >UL Scrambling Code | 0 | | 9.2.2.53 | | _ | |
| >UL SIR Target | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Min UL Channelisation Code Length | 0 | | 9.2.2.25 | | _ | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.24 | | _ | |
| >Puncture Limit | 0 | | 9.2.1.46 | For the UL. | _ | |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the UL. | - | |
| >UL DPCCH Slot Format | 0 | | 9.2.2.52 | <u> </u> | _ | |
| >Diversity Mode | 0 | 1 | 9.2.2.8 | | _ | |
| >SSDT Cell Identity Length | 0 | | 9.2.2.41 | | _ | |
| >S-Field Length | 0 | | 9.2.2.36 | | _ | |
| DL DPCH Information | - | 01 | 3.2.2.00 | | YES | reject |
| >TFCS | 0 | 01 | 9.2.1.63 | TFCS for the DL. | - | 10,000 |
| >DL DPCH Slot Format | 0 | | 9.2.2.9 | DL. | _ | |
| >Number of DL Channelisation Codes | 0 | | 9.2.2.26A | | _ | |
| >TFCI Signalling Mode | 0 | | 9.2.2.46 | | _ | |
| >TFCI Signaling Wode >TFCI Presence | C- SlotFormat | | 9.2.1.55 | | _ | |
| >Multiplexing Position | O | | 9.2.2.26 | | | |
| >Limited Power Increase | 0 | | 9.2.2.21A | | - | |
| >Split Type | 0 | | 9.2.2.39a | | YES | reject |
| >Length of TFCI2 | 0 | | 9.2.2.21C | | YES | reject |
| DCHs To Modify | 0 | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | 0 | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DCHs <u>tT</u> o Delete | | 0 <maxnoof DCHs></maxnoof | | | GLOBAL | reject |
| >DCH ID | М | | 9.2.1.16 | | _ | |
| DSCHs To Modify | | 01 <u>01</u> | | | YES | reject |
| >DSCH Info | | 0 <maxnoof DSCHs></maxnoof | | | _ | _ |
| >>DSCH ID | М | - | 9.2.1.26A | | _ | |
| >>TrCH Source Statistics Descriptor | 0 | | 9.2.1.65 | | - | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For DSCH | - | |
| >>Allocation/ Retention Priority | 0 | | 9.2.1.1 | | - | |
| >>Scheduling Priority Indicator | 0 | | 9.2.1.51A | | _ | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|--------------------------|---|--|---|-------------|----------------------|
| >>BLER | 0 | | Reference 9.2.1.4 | | _ | |
| >>Transport Bearer | M | | 9.2.1.4 | | _ | |
| Request Indicator | 101 | | 0.2.1.01 | | | |
| >>Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |
| >>Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >>Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >PDSCH RL ID | 0 | | RL ID 9.2.1.49 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | For DSCH | _ | |
| >Enhanced DSCH PC Indicator | 0 | | 9.2.2.13F | | YES | ignore |
| >Enhanced DSCH PC | C- EDSCHPC On | | 9.2.2.13D | | YES | ignore |
| DSCHs To Add | 0 | | DSCH FDD Information 9.2.2.13A | | YES | reject |
| DSCHs to Delete | | 01 <u>01</u> | | | YES | reject |
| >DSCH Info | | 1 <maxnoof DSCHs></maxnoof | | | _ | |
| >>DSCH ID | M | | 9.2.1.26A | | _ | |
| RL Information | | 0 <maxnoof RLs></maxnoof | | | EACH | reject |
| >RL ID | M | | 9.2.1.49 | | - | |
| >SSDT Indication | 0 | | 9.2.2.42 | | _ | |
| >SSDT Cell Identity | C - SSDTIndON | | 9.2.2.40 | | _ | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | _ | |
| >SSDT Cell Identity for EDSCHPC | C- EDSCHPC | | 9.2.2.40A | | YES | ignore |
| >DL Reference Power | 0 | | DL Power 9.2.1.21A | Power on DPCH | YES | ignore |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | YES | ignore |
| >DL DPCH Timing Adjustment | 0 | | 9.2.2.9A | Required RL Timing Adjustment | YES | reject |
| >Qth Parameter | 0 | | 9.2.2.34a | | YES | ignore |
| >Phase Reference Update Indicator | 0 | | 9.2.2.27B | | YES | ignore |
| Transmission Gap Pattern Sequence Information | 0 | | 9.2.2.47A | | YES | reject |
| HS-DSCH Information To Modify | 0 | | 9.2.1.30Q | | YES | reject |
| HS-DSCH Information To Add | 0 | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-DSCH Information To | | 0 <maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxnoof<> | | | GLOBAL | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------------|-----------------------------|--------------------------|-------------|-------------------------|
| Delete | | MACdFlows > | | | | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| HS-PDSCH RL ID | 0 | | RL ID 9.2.1.49 | | YES | reject |
| UE Support Of Dedicated Pilots For Channel Estimation | 0 | | 9.2.2.50A | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | 0 | | 9.2.2.50B | | YES | ignore |

| Condition | Explanation |
|----------------|---|
| SSDTIndON | The IE shall be present if the SSDT Indication IE is set to "SSDT Active in the UE". |
| CodeLen | The IE shall be present only if the <i>Min UL Channelisation Code length</i> IE equals to 4. |
| SlotFormat | The IE shall only be present if the <i>DL DPCH Slot</i> Format IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if <i>Diversity Mode</i> IE is present in the <i>UL DPCH Information</i> IE and is not equal to "none". |
| EDSCHPCOn | The IE shall be present if the <i>Enhanced DSCH PC Indicator</i> IE is set to "Enhanced DSCH PC Active in the UE". |
| EDSCHPC | The IE shall be present if <i>Enhanced DSCH PC</i> IE is present in either the <i>DSCHs To Modify</i> IE or the <i>DSCHs To Add</i> IE. |

| Range bound | Explanation |
|------------------|---------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for a UE. |
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |
| maxnoofRLs | Maximum number of RLs for a UE. |
| maxnoofMACdFlows | Maximum number of HS-DSCH MAC-d flows |

9.1.11.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|----------|---|-------------------------|---|-------------|----------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL CCTrCH To Add | | 0 <maxno ofCCTrCH s></maxno | | For DCH and USCH | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | M | | 9.2.1.63 | For the UL. | - | |
| >TFCI Coding | M | | 9.2.3.11 | | _ | |
| >Puncture Limit | M | | 9.2.1.46 | | - | |
| >UL SIR Target | 0 | | Uplink SIR 9.2.1.69 | Mandatory for 1.28Mcps TDD; not applicable to 3.84Mcps TDD | YES | reject |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | reject |
| UL CCTrCH To Modify | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | М | 0,5 | 9.2.3.2 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | For the UL. | _ | |
| >TFCI Coding | 0 | | 9.2.3.11 | | - | |
| >Puncture Limit | 0 | | 9.2.1.46 | | _ | |
| >UL SIR Target | 0 | | Uplink SIR 9.2.1.69 | Applicable to 1.28Mcps TDD only | YES | reject |
| >TDD TPC Uplink Step Size | 0 | | 9.2.3.10a | Applicable to 1.28Mcps TDD only | YES | reject |
| UL CCTrCH to Delete | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| DL CCTrCH To Add | | 0 <maxno ofCCTrCH s></maxno | | For DCH and DSCH | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | - | |
| >TFCS | М | | 9.2.1.63 | For the DL. | _ | |
| >TFCI Coding | М | | 9.2.3.11 | | _ | |
| >Puncture Limit | М | <u> </u> | 9.2.1.46 | | | |
| >TPC CCTrCH List | | 0 <maxno CCTrCHs></maxno | | List of uplink CCTrCH which provide TPC | _ | |
| >>TPC CCTrCH ID | М | | CCTrCH ID 9.2.3.2 | | _ | |
| >TDD TPC Downlink Step Size | 0 | | 9.2.3.10 | | YES | reject |
| DL CCTrCH To Modify | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | For the DL. | _ | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|--|---|-------------|----------------------|
| | | | Reference | | | |
| >TFCI Coding | 0 | | 9.2.3.11 | | - | |
| >Puncture Limit | 0 | | 9.2.1.46 | | _ | |
| >TPC CCTrCH List | | 0 <maxno CCTrCHs></maxno | | List of uplink CCTrCH which provide TPC | I | |
| >>TPC CCTrCH ID | M | | CCTrCH ID 9.2.3.2 | | ı | |
| >TDD TPC Downlink Step Size | 0 | | 9.2.3.10 | | YES | reject |
| DL CCTrCH to Delete | | 0 <maxno ofCCTrCH s></maxno | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| DCHs To Modify | 0 | | TDD DCHs To Modify 9.2.3.8B | | YES | reject |
| DCHs To Add | 0 | | DCH TDD Information 9.2.3.2A | | YES | reject |
| DCHs to Delete | | 0 <maxno ofDCHs></maxno | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | ı | |
| DSCHs To Modify | | 0 <maxno ofDSCHs></maxno | | | GLOBAL | reject |
| >DSCH ID | M | | 9.2.1.26A | | _ | |
| >CCTrCH ID | 0 | | 9.2.3.2 | DL CCTrCH in which the DSCH is mapped. | _ | |
| >TrCH Source Statistics Descriptor | 0 | | 9.2.1.65 | | - | |
| >Transport Format Set | 0 | | 9.2.1.64 | | _ | |
| >Allocation/Retention Priority | 0 | | 9.2.1.1 | | ı | |
| >Scheduling Priority Indicator | 0 | | 9.2.1.51A | | ı | |
| >BLER | 0 | | 9.2.1.4 | | _ | |
| >Transport Bearer Request Indicator | М | | 9.2.1.61 | | - | |
| >Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishmen t with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishmen t with ALCAP. | YES | ignore |
| DSCHs To Add | 0 | | DSCH TDD Information 9.2.3.3a | | YES | reject |
| DSCHs to Delete | | 0 <maxno ofDSCHs></maxno | | | GLOBAL | reject |
| >DSCH ID | М | | 9.2.1.26A | | | |
| USCHs To Modify | | 0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<> | | | GLOBAL | reject |

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|--|---|-------------|-------------------------|
| | | ofUSCHs> | | | | |
| >USCH ID | М | | 9.2.3.14 | | _ | |
| >CCTrCH ID | 0 | | 9.2.3.2 | UL CCTrCH in which the USCH is mapped. | - | |
| >TrCH Source Statistics Descriptor | 0 | | 9.2.1.65 | | _ | |
| >Transport Format Set | 0 | | 9.2.1.64 | | _ | |
| >Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | 0 | | 9.2.1.51A | | _ | |
| >BLER | 0 | | 9.2.1.4 | | _ | |
| >Transport Bearer Request Indicator | М | | 9.2.1.61 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishmen t with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishmen t with ALCAP. | YES | ignore |
| >RB Info | | 0 <maxno ofRB></maxno | | All Radio Bearers using this USCH | - | |
| >>RB Identity | M | | 9.2.3.5B | | ı | |
| >Traffic class | 0 | | 9.2.1.58A | | YES | ignore |
| USCHs To Add | 0 | | USCH Information 9.2.3.15 | | YES | reject |
| USCHs to Delete | | 0 <maxno ofUSCHs></maxno | | | GLOBAL | reject |
| >USCH ID | M | | 9.2.3.14 | | ı | |
| RL Information | | 01 | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | - | |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | _ | |
| Primary CCPCH RSCP | 0 | | 9.2.3.5 | | YES | ignore |
| DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Applicable to 3.84Mcps TDD only | YES | ignore |
| DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Applicable to 1.28Mcps TDD only | YES | ignore |
| HS-DSCH Information To Modify | 0 | | 9.2.1.30Q | | YES | reject |
| HS-DSCH Information To Add | 0 | | HS-DSCH TDD Information 9.2.3.3aa | | YES | reject |
| HS-DSCH Information To Delete | | 0 <maxno ofMACdFl ows></maxno | | | GLOBAL | reject |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|-------|-----------------------------|--|-------------|-------------------------|
| HS-PDSCH RL ID | 0 | | RL ID 9.2.1.49 | | YES | reject |
| PDSCH-RL-ID | 0 | | RL ID 9.2.1.49 | | YES | ignore |
| >UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >Uplink Synchronisation Step Size | М | | 9.2.3.13J | | _ | |
| >Uplink Synchronisation Frequency | М | | 9.2.3.131 | | _ | |

| Range bound | Explanation |
|------------------|---------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for a UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |
| maxnoofUSCHs | Maximum number of USCHs for one UE. |
| maxnoofMACdFlows | Maximum number of HS-DSCH MAC-d flows |

9.1.12 RADIO LINK RECONFIGURATION READY

9.1.12.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|----------------------------------|--|--------------------------|-------------|----------------------|
| Managa Tura | N4 | | Reference | | VEC | wa:t |
| Message Type Transaction ID | M | | 9.2.1.40 9.2.1.59 | | YES | reject |
| RL Information Response | IVI | 0 <maxno ofRLs></maxno | 9.2.1.59 | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | - | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | ı | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | - | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DL Code Information | 0 | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCHs to be Added or Modified | 0 | | DSCH FDD Information Response 9.2.2.13B | | YES | ignore |
| >DL Power Balancing Updated Indicator | 0 | | 9.2.2.10D | | YES | ignore |
| >HS-DSCH Information Response | 0 | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | 0 | | 9.2.2.32A | | YES | ignore |
| >Secondary CPICH Information Change | 0 | | 9.2.2.38B | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| MAC-hs Reset Indicator | 0 | | 9.2.1.34B | | YES | reject |

| Range bound | Explanation | | |
|-------------|---------------------------------|--|--|
| maxnoofRLs | Maximum number of RLs for a UE. | | |

9.1.12.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|---------------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | , |
| RL Information Response | | 01 | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | - | |
| >Secondary CCPCH Info TDD | 0 | | 9.2.3.7B | | _ | |
| >UL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | М | | 9.2.3.2 | | _ | |
| >>UL DPCH to be Added | | 01 | 0.2.6.2 | Applicable to 3.84Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | - | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | - | |
| >>> Rx Timing Deviation | 0 | | 9.2.3.7A | | _ | |
| >>>UL Timeslot Information | М | | 9.2.3.13C | | _ | |
| >>UL DPCH to be Modified | | 01 | | | YES | ignore |
| >>>Repetition Period | 0 | | 9.2.3.7 | | _ | |
| >>>Repetition Length | 0 | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | 0 | | 9.2.3.8A | | _ | |
| >>>UL Timeslot Information | | 0 <maxnoo fTS></maxnoo | | Applicable to 3.84Mcps TDD only | _ | |
| >>>Time Slot | M | | 9.2.1.56 | | _ | |
| >>>>Midamble Shift And Burst Type | 0 | | 9.2.3.4 | | _ | |
| >>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>UL Code Information | | 0 <maxno0 fDPCHs></maxno0 | | | _ | |
| >>>>DPCH ID | М | | 9.2.3.3 | | _ | |
| >>>>TDD Channelisation Code | 0 | | 9.2.3.8 | | _ | |
| >>>UL Timeslot Information LCR | | 0 <maxnoo fTSLCR></maxnoo | | Applicable to 1.28Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot LCR | М | | 9.2.3.12a | , | _ | |
| >>>>Midamble Shift LCR | 0 | | 9.2.3.4C | | _ | |
| >>>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>UL Code | | 0 <maxno0< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxno0<> | | | GLOBAL | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|---|-----------------------------|---------------------------------------|-------------|-------------------------|
| Information LCR | | fDPCHLCR> | | | | |
| >>>>DPCH | М | | 9.2.3.3 | | _ | |
| ID | | | | | | |
| >>>>TDD | 0 | | 9.2.3.8a | | _ | |
| Channelisation | | | | | | |
| Code LCR | _ | | _ | | | |
| >>>> TDD | 0 | | 9.2.3.10C | | YES | reject |
| UL DPCH | | | | | | |
| Time Slot | | | | | | |
| Format LCR >>UL DPCH to be | | 0 <maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>ianoro</td></maxnoof<> | | | GLOBAL | ianoro |
| Deleted | | DPCHs> | | | GLOBAL | ignore |
| >>>DPCH ID | М | Dr Cris> | 9.2.3.3 | | _ | |
| >>UL DPCH to be | 101 | 01 | 0.2.0.0 | Applicable to | YES | ignore |
| Added LCR | | 01 | | 1.28Mcps TDD only | 120 | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | _ | _ | |
| >>>Repetition Length | М | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | М | | 9.2.3.8A | | _ | |
| >>>UL Timeslot | М | | 9.2.3.13G | | _ | |
| Information LCR | | | | | | |
| >DL CCTrCH Information | | 0 <maxnoof CCTrCHs></maxnoof | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | - | |
| >>DL DPCH to be Added | | 01 | | Applicable to 3.84Mcps TDD only | YES | ignore |
| >>>Repetition Period | М | | 9.2.3.7 | TDD Only | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot | M | | 9.2.3.2C | | _ | |
| Information | | | | | | |
| >>DL DPCH to be | | 01 | | | YES | ignore |
| Modified | | | | | | |
| >>>Repetition Period | 0 | | 9.2.3.7 | | _ | |
| >>>Repetition Length | 0 | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | 0 | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information | | 0 <maxno0 fTS></maxno0 | | Applicable to 3.84Mcps TDD only | _ | |
| >>>>Time Slot | M | | 9.2.1.56 | | _ | |
| >>>>Midamble Shift | 0 | | 9.2.3.4 | | | |
| And Burst Type | | | | | | |
| >>>TFCI Presence | 0 | | 9.2.1.55 | | _ | |
| >>>>DL Code | | 0 <maxnoo< td=""><td></td><td></td><td>_</td><td></td></maxnoo<> | | | _ | |
| Information | ļ | fDPCHs> | 0000 | | | |
| >>>>DPCH ID | M | 1 | 9.2.3.3 | | _ | |
| >>>>TDD Channelisation Code | 0 | | 9.2.3.8 | | _ | |
| >>>DL Timeslot Information LCR | | 0 <maxno0 fTSLCR></maxno0 | | Applicable to 1.28Mcps TDD only | GLOBAL | ignore |
| >>>>Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >>>>Midamble Shift | 0 | | 9.2.3.4C | | | |
| LCR | | | | | | |
| >>>>TFCI Presence | 0 | | 9.2.1.55 | | | |
| >>>>DL Code | | 0 <maxnoo< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxnoo<> | | | GLOBAL | ignore |
| Information LCR | | fDPCHLCR> | 0000 | | | |
| >>>>DPCH ID | M | | 9.2.3.3 | | _ | |
| >>>>TDD | 0 | | 9.2.3.8a | | _ | |
| Channelisation | | <u> </u> | |] | | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|---|---|-------------|-------------------------|
| Code LCR | | | | | | |
| >>>> TDD DL DPCH Time Slot Format LCR | 0 | | 9.2.3.8E | | YES | reject |
| >>>>Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >>>>Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |
| >>DL DPCH to be Deleted | | 0 <maxnoof DPCHs></maxnoof | | | GLOBAL | ignore |
| >>>DPCH ID | M | | 9.2.3.3 | | _ | |
| >>DL DPCH to be Added LCR | | 01 | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>Repetition Period | M | | 9.2.3.7 | | _ | |
| >>>Repetition Length | M | | 9.2.3.6 | | _ | |
| >>>TDD DPCH Offset | M | | 9.2.3.8A | | _ | |
| >>>DL Timeslot Information LCR | M | | 9.2.3.2E | | _ | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DSCH to be Added or Modified | | 0 <maxnoof DSCHs></maxnoof | | | GLOBAL | ignore |
| >>DSCH ID | М | | 9.2.1.26A | | _ | |
| >>Transport Format Management | M | | 9.2.3.13 | | _ | |
| >>DSCH Flow Control Information | М | | 9.2.1.26B | | - | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >USCH to be Added or Modified | | 0 <maxnoof USCHs></maxnoof | | | GLOBAL | ignore |
| >>USCH ID | М | | 9.2.3.14 | | _ | |
| >>Transport Format Management | М | | 9.2.3.13 | | _ | |
| >>Binding ID | 0 | | 9.2.1.3 | | _ | |
| >>Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >HS-DSCH Information Response | 0 | | HS-DSCH TDD Information Response | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|-------|-------------|---------------------------------------|-------------|----------------------|
| | | | Reference | | | |
| | | | 9.2.3.3ab | | | |
| >Uplink Timing Advance Control LCR | 0 | | 9.2.3.13K | Applicable to 1.28Mcps TDD only | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| HS-DSCH-RNTI | 0 | | 9.2.1.30P | | YES | reject |
| DSCH-RNTI | 0 | | 9.2.1.26Ba | | YES | ignore |
| MAC-hs Reset Indicator | 0 | | 9.2.1.34B | | YES | reject |

| Range bound | Explanation |
|-----------------|--|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |
| maxnoofUSCHs | Maximum number of USCHs for one UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofTS | Maximum number of Timeslots for a UE for 3.84Mcps TDD. |
| maxnoofDPCHs | Maximum number of DPCH for a UE for 3.84Mcps TDD. |
| maxnoofTSLCRs | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| maxnoofDPCHLCRs | Maximum number of DPCH for a UE for 1.28Mcps TDD. |

9.1.13 RADIO LINK RECONFIGURATION COMMIT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| CFN | M | | 9.2.1.9 | | YES | ignore |
| Active Pattern Sequence Information | 0 | | 9.2.2.A | FDD only | YES | ignore |

9.1.14 RADIO LINK RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|------------------------------------|----------------|--------------------------|-------------|-------------------------|
| | | | Reference | • | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Cause Level | M | | | | YES | ignore |
| >General | | | | | _ | |
| >>Cause | M | | 9.2.1.5 | | _ | |
| >RL Specific | | | | | _ | |
| >>RLs Causing Reconfiguration Failure | | 0 <maxnoof RLs></maxnoof | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation | | |
|-------------|---------------------------------|--|--|
| maxnoofRLs | Maximum number of RLs for a UE. | | |

9.1.15 RADIO LINK RECONFIGURATION CANCEL

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |

9.1.16 RADIO LINK RECONFIGURATION REQUEST

9.1.16.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-----------------------------------|------------------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL DPCH Information | | 01 | | | YES | reject |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the UL. | _ | |
| DL DPCH Information | | 01 | | | YES | reject |
| >TFCS | 0 | | 9.2.1.63 | TFCS for the DL. | _ | |
| >TFCI Signalling Mode | 0 | | 9.2.2.46 | | _ | |
| >Limited Power Increase | 0 | | 9.2.2.21A | | _ | |
| DCHs To Modify | 0 | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | 0 | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DCHs <u>t</u> o Delete | | 0 <maxno ofDCHs></maxno | | | GLOBAL | reject |
| >DCH ID | М | | 9.2.1.16 | | 1 | |
| Transmission Gap Pattern Sequence Information | 0 | | 9.2.2.47A | | YES | reject |
| RL Information | | 0 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | ı | |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | 1 | |
| DL Reference Power Information | 0 | | 9.2.2.10C | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation | 0 | | 9.2.2.50A | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | 0 | | 9.2.2.50B | | YES | ignore |

| Range Bound | <u>Explanation</u> |
|--------------------|------------------------------------|
| <u>maxnoofDCHs</u> | Maximum number of DCHs for one UE. |
| maxnoofRLs | Maximum number of RLs for a UE. |

9.1.16.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|---|------------------------------------|--|-------------|----------------------|
| | | | Reference | Description | | Orthodinty |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | • |
| Allowed Queuing Time | 0 | | 9.2.1.2 | | YES | reject |
| UL CCTrCH Information To | | 0 <maxnoof< td=""><td></td><td></td><td>EACH</td><td>notify</td></maxnoof<> | | | EACH | notify |
| Modify >CCTrCH ID | N4 | CCTrCHs> | 0000 | | | |
| >TFCS | M O | | 9.2.3.2 9.2.1.63 | | _ | |
| >UL SIR Target | 0 | | Uplink SIR | Applicable to | YES | roicat |
| Ů | O | | 9.2.1.69 | Applicable to 1.28Mcps TDD only | | reject |
| UL CCTrCH Information to | | 0 <maxnoof< td=""><td></td><td></td><td>EACH</td><td>notify</td></maxnoof<> | | | EACH | notify |
| Delete | | CCTrCHs> | | | | |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| DL CCTrCH Information To Modify | | 0 <maxnoof CCTrCHs></maxnoof | | | EACH | notify |
| >CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >TFCS | 0 | | 9.2.1.63 | | _ | |
| DL CCTrCH Information to Delete | | 0 <maxnoof CCTrCHs></maxnoof | | | EACH | notify |
| >CCTrCH ID | М | | 9.2.3.2 | | _ | |
| DCHs To Modify | 0 | | TDD DCHs To Modify 9.2.3.8B | | YES | reject |
| DCHs To Add | 0 | | DCH TDD Information 9.2.3.2A | | YES | reject |
| DCHs to Delete | | 0 <maxnoof DCHs></maxnoof | | | GLOBAL | reject |
| >DCH ID | М | | 9.2.1.16 | | _ | |
| RL Information | | 01 | | | YES | ignore |
| >RL ID | М | | 9.2.1.49 | | _ | - |
| >RL Specific DCH Information | 0 | | 9.2.1.49A | | _ | |
| UL Synchronisation Parameters LCR | | 01 | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | YES | ignore |
| >Uplink Synchronisation Step Size | М | | 9.2.3.13J | | _ | |
| >Uplink Synchronisation Frequency | М | | 9.2.3.131 | | _ | |

| Range Bound | Explanation |
|----------------|-------------------------------------|
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.1.17 RADIO LINK RECONFIGURATION RESPONSE

9.1.17.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|----------------------------------|--|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | • |
| RL Information Response | | 0 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >Secondary CCPCH Info | 0 | | 9.2.2.37B | | _ | |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DL Code Information | 0 | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DL Power Balancing Updated Indicator | 0 | | 9.2.2.10D | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range Bound | Explanation |
|-------------|---------------------------------|
| maxnoofRLs | Maximum number of RLs for a UE. |

9.1.17.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|---|-----------------------------|---|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| RL Information Response | | 01 | | | YES | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >Maximum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | _ | |
| >Minimum Uplink SIR | 0 | | Uplink SIR 9.2.1.69 | | I | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | | 1 | |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | | _ | |
| >DCH Information Response | 0 | | 9.2.1.16A | | YES | ignore |
| >DL CCTrCH Information | | 0 <maxno ofCCTrCH s></maxno | | For DCH | GLOBAL | ignore |
| >>CCTrCH ID | M | | 9.2.3.2 | | ı | |
| >>DL DPCH To Modify LCR | | 01 | | Applicable to 1.28Mcps TDD only | YES | ignore |
| >>>DL Timeslot Information LCR | | 0 <maxno OfTSLCR ></maxno | | | 1 | |
| >>>>Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >>>>Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | - | |
| >>>Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | - | |
| >>CCTrCH Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >>CCTrCH Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only | YES | ignore |
| >Uplink Timing Advance Control LCR | 0 | | 9.2.3.13K | Applicable to 1.28Mcps TDD only | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|----------------|---|
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofTSLCRs | Maximum number of Timeslots for a UE for 1.28Mcps |
| | TDD. |

9.1.18 RADIO LINK FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------|----------|--|-----------|---|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Reporting Object | M | | | Object for which the Failure shall be reported. | YES | ignore |
| >RL | | | | | _ | |
| >>RL Information | | 1 <maxnoofrl s></maxnoofrl | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| >RLS | | | | FDD only | _ | |
| >>RL Set Information | | 1 <maxnoofrl Sets></maxnoofrl | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |
| >CCTrCH | | | | TDD only | | |
| >>RL ID | M | | 9.2.1.49 | | _ | |
| >>CCTrCH List | | 1 <maxnoc CTrCHs></maxnoc | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.2 | | _ | |
| >>>Cause | M | | 9.2.1.5 | | _ | |

| Range bound | Explanation |
|----------------|---------------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |
| maxnoofRLSets | Maximum number of RL Sets for one UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |

9.1.19 RADIO LINK RESTORE INDICATION

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------|----------|---|-----------|---|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CHOICE Reporting Object | М | | | Object for which the Restoration shall be | YES | ignore |
| | | | | reported. | | |
| >RL | | | | TDD only | - | |
| >>RL Information | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >RLS | | | | FDD only | _ | |
| >>RL Set Information | | 1 <maxno ofRLSet s></maxno | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >CCTrCH | | | | TDD only | | |
| >>RL ID | M | | 9.2.1.49 | | _ | |
| >>CCTrCH List | | 1 <max noCCTr CHs></max | | | EACH | ignore |
| >>>CCTrCH ID | M | | 9.2.3.2 | | _ | |

| Range bound | Explanation |
|----------------|---------------------------------------|
| maxnoofRLs | Maximum number of RLs for one UE. |
| maxnoofRLSets | Maximum number of RL Sets for one UE. |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |

9.1.20 DL POWER CONTROL REQUEST [FDD]

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|-------------|---|----------------|--------------------------|-------------|----------------------|
| | | | Reference | - | | _ |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Power Adjustment Type | M | | 9.2.2.28 | | YES | ignore |
| DL Reference Power | C- | | DL Power | | YES | ignore |
| | Common | | 9.2.1.21A | | | - |
| Inner Loop DL PC Status | 0 | | 9.2.2.21a | | YES | ignore |
| DL Reference Power | C- | 1 <maxnoo< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoo<> | | | EACH | ignore |
| Information | Individual | fRLs> | | | | · |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Reference Power | M | | DL Power | | _ | |
| | | | 9.2.1.21A | | | |
| Max Adjustment Step | C- | | 9.2.2.23 | | YES | ignore |
| | CommonO | | | | | |
| | rIndividual | | | | | |
| Adjustment Period | C- | | 9.2.2.B | | YES | ignore |
| | CommonO | | | | | |
| | rIndividual | | | | | |
| Adjustment Ratio | C- | | 9.2.2.C | | YES | ignore |
| | CommonO | | | | | |
| | rIndividual | | | | | |

| Condition | Explanation | | | |
|--------------------|--|--|--|--|
| Common | The IE shall be present if the Power Adjustment Type IE is set | | | |
| | to "Common". | | | |
| Individual | The IE shall be present if the Power Adjustment Type IE is set | | | |
| | to "Individual". | | | |
| CommonOrIndividual | The IE shall be present if the Power Adjustment Type IE is set | | | |
| | to "Common" or "Individual". | | | |

| Range Bound | Explanation | | | |
|-------------|-----------------------------------|--|--|--|
| maxnoofRLs | Maximum number of RLs for one UE. | | | |

9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

9.1.21.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------------|----------|-------|--|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | - |
| RL Information | | 1 | | | YES | reject |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Code Information | М | | FDD DL Code Information 9.2.2.14A | | YES | notify |

9.1.21.2 TDD Message

| Reference | IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|------------------------|----------|--|----------------|--------------------------|-------------|----------------------|
| Transaction ID | | | | | Description | | Criticality |
| RL Information | Message Type | M | | | | YES | reject |
| Set D | | M | | 9.2.1.59 | | _ | |
| SUL CTrCH Information | | | 1 | | | YES | reject |
| Sectification | >RL ID | M | | 9.2.1.49 | | _ | |
| SOUTH D | >UL CCTrCH Information | | - | | | GLOBAL | reject |
| SPUL Propertion M | | | | | | | |
| South PCH Information | 007.011.15 | | CCTrCHs> | | | | |
| Sepetition Period O Septimental O Sept | | M | | 9.2.3.2 | | - | |
| September Sept | | | 1 | 0007 | | | notify |
| Section Color Section Sectio | | | | | | | |
| Applicable to - | | | | | | _ | |
| Information | >>> IDD DPCH Offset | U | 0 -mayna | 9.2.3.6A | Applicable to | _ | |
| SSSTIME Slot M | | | | | 3.84Mcps | _ | |
| And Burst Type | >>>>Time Slot | М | | 9.2.1.56 | | _ | |
| System S | | 0 | | 9.2.3.4 | | _ | |
| New Part New Part | | | | | | | |
| Information | | | | | | _ | |
| Information Substitution Subst | | 0 | | | | _ | |
| | Information | | | | | | |
| Name | | | | | | | |
| Information LCR | >>> Timoslot | | 0 (ma)(na | 9.2.3.10A | Applicable to | CLOBAL | roinat |
| Security Security | | | | | | GLOBAL | reject |
| Section Solid So | Information Lon | | | | | | |
| S>>>Midamble Shift LCR | >>>Time Slot I CR | M | - | 0 2 3 122 | 1 DD Only | _ | |
| LCR | | | | | | _ | |
| System S | | · · | | 0.2.0.10 | | | |
| System | | 0 | | 9.2.1.55 | | _ | |
| Information LCR 9.2.3.10B | | 0 | | TDD UL | | _ | |
| CCTrCH Information | Information LCR | | | Code | | | |
| SOUTH Information | | | | | | | |
| Description | | | | | | | |
| Source S | DI 007 0111 (| | | 9.2.3.10B | | | |
| S S S S S S S S S S | >DL CCTrCH Information | | | | | GLOBAL | reject |
| Source S | | | | | | | |
| >>DL DPCH Information 1 YES notify >>>Repetition Period 0 9.2.3.7 — >>>Repetition Length 0 9.2.3.6 — >>>TDD DPCH Offset 0 9.2.3.8A — >>>DL Timeslot Information 0 <maxno ofts=""> Applicable to 3.84Mcps TDD only — >>>>Time Slot M 9.2.1.56 — — >>>>Midamble Shift And Burst Type 0 9.2.3.4 — — >>>>DL Code Information 0 TDD DL Code Information 9.2.3.8C — — — >>>>DL Timeslot Information LCR 0<maxno oftslcr<="" td=""> Applicable to 1.28Mcps TDD only GLOBAL reject reject >>>>Time Slot LCR M 9.2.3.12a — — >>>>Time Slot LCR M 9.2.3.4C — — >>>>Midamble Shift LCR O 9.2.3.4C — —</maxno></maxno> | · · · COT*CH ID | N/A | S> | 0000 | | | |
| >>>Repetition Period O 9.2.3.7 - >>>Repetition Length O 9.2.3.6 - >>>TDD DPCH Offset O 9.2.3.8A - >>>DL Timeslot Information 0 <maxno ofts=""> Applicable to 3.84Mcps TDD only >>>>Time Slot M 9.2.1.56 - >>>>Midamble Shift And Burst Type O 9.2.3.4 - >>>>TFCI Presence O 9.2.1.55 - >>>>DL Code Information O TDD DL Code Information 9.2.3.8C Applicable to 1.28Mcps TDD only >>>DL Timeslot Information LCR O<maxno notes="" oftslcr="" only<="" td="" tdd=""> Applicable to 1.28Mcps TDD only GLOBAL Preject >>>>Time Slot LCR M 9.2.3.12a - >>>>Midamble Shift LCR O 9.2.3.4C -</maxno></maxno> | | IVI | 1 | 9.2.3.2 | | VEQ | potify |
| >>>Repetition Length O 9.2.3.6 — >>>TDD DPCH Offset O 9.2.3.8A — >>>DL Timeslot Information M 0 <maxno ofts=""> Applicable to 3.84Mcps TDD only >>>>Time Slot M 9.2.1.56 — >>>>Midamble Shift And Burst Type O 9.2.3.4 — >>>>TFCI Presence O 9.2.1.55 — >>>DL Code Information O TDD DL Code Information 9.2.3.8C — Information LCR O<maxno n<="" notslcr="" oftslcr="" td=""><td></td><td>0</td><td>1</td><td>0237</td><td></td><td>163</td><td>Hothy</td></maxno></maxno> | | 0 | 1 | 0237 | | 163 | Hothy |
| >>>TDD DPCH Offset O 9.2.3.8A — >>>DL Timeslot Information 0 <maxno ofts=""> Applicable to 3.84Mcps TDD only >>>>Time Slot M 9.2.1.56 — >>>>Midamble Shift And Burst Type O 9.2.3.4 — >>>>TFCI Presence O 9.2.1.55 — >>>>DL Code Information O TDD DL Code Information 9.2.3.8C — Information LCR O:.<maxno oftslcr=""> TDD only Applicable to 1.28Mcps TDD only Feet >>>>Time Slot LCR M 9.2.3.12a — >>>>Midamble Shift LCR O 9.2.3.4C —</maxno></maxno> | | | | | | _ | |
| No Applicable to 3.84Mcps TDD only | | | | | | | |
| Information | | | 0 <maxno< td=""><td>0.2.0.071</td><td>Applicable to</td><td>_</td><td></td></maxno<> | 0.2.0.071 | Applicable to | _ | |
| TDD only | | | | | | | |
| >>>>Time Slot M 9.2.1.56 — >>>>Midamble Shift And Burst Type O 9.2.3.4 — >>>>TFCI Presence O 9.2.1.55 — >>>>DL Code Information O TDD DL Code Information 9.2.3.8C — >>>DL Timeslot Information LCR O <maxno oftslcr=""> TDD only Applicable to 1.28Mcps TDD only GLOBAL >>>>Time Slot LCR M 9.2.3.12a — >>>>Midamble Shift LCR O 9.2.3.4C —</maxno> | | | | | | | |
| >>>>Midamble Shift And Burst Type O 9.2.3.4 — >>>>TFCI Presence O 9.2.1.55 — >>>>DL Code Information O TDD DL Code Information 9.2.3.8C — >>>DL Timeslot Information LCR O <maxno OfTSLCR > Applicable to 1.28Mcps TDD only GLOBAL reject >>>>Time Slot LCR M 9.2.3.12a — >>>>Midamble Shift LCR O 9.2.3.4C —</maxno | | M | | 9.2.1.56 | | | |
| >>>>TFCI Presence O 9.2.1.55 — >>>>DL Code Information O TDD DL Code Information 9.2.3.8C — >>>DL Timeslot Information LCR O <maxno oftslcr=""> Applicable to 1.28Mcps TDD only reject >>>>Time Slot LCR M 9.2.3.12a — >>>>Midamble Shift LCR O 9.2.3.4C —</maxno> | | 0 | | 9.2.3.4 | | _ | |
| >>>>DL Code Information O TDD DL Code Information 9.2.3.8C — >>>DL Timeslot Information LCR 0 <maxno OfTSLCR > Applicable to 1.28Mcps TDD only GLOBAL reject >>>>Time Slot LCR M 9.2.3.12a — >>>>Midamble Shift LCR O 9.2.3.4C —</maxno | | | | | | | |
| Information | | | | | | _ | |
| Information 9.2.3.8C | | 0 | | | | _ | |
| 9.2.3.8C | Information | | | | | | |
| >>>DL Timeslot Information LCR 0 <maxno OfTSLCR > Applicable to 1.28Mcps TDD only GLOBAL reject >>>>Time Slot LCR M 9.2.3.12a - >>>>Midamble Shift LCR O 9.2.3.4C -</maxno | | | | | | | |
| Information LCR OfTSLCR > 1.28Mcps TDD only >>>>Time Slot LCR M 9.2.3.12a - >>>>Midamble Shift LCR O 9.2.3.4C - | >>>DI Timeslot | | 0 <mayno< td=""><td>3.2.3.00</td><td>Annlicable to</td><td>GLOBAL</td><td>reject</td></mayno<> | 3.2.3.00 | Annlicable to | GLOBAL | reject |
| > TDD only >>>>Time Slot LCR M 9.2.3.12a - >>>>Midamble Shift LCR O 9.2.3.4C - | | | | | | GLOBAL | reject |
| >>>>Time Slot LCR | | | | | | | |
| >>>Midamble Shift O 9.2.3.4C — | >>>Time Slot I CR | М | | 9.2.3.12a | | _ | |
| LCR | | | | | | _ | |
| | | | | | | | |
| | | 0 | | 9.2.1.55 | | _ | |

| >>>>DL Code Information LCR | 0 | | TDD DL Code Information LCR 9.2.3.8D | | _ | |
|--|---|-----------------------------------|--|---------------------------------------|--------|--------|
| >HS-PDSCH Timeslot Specific Information | | 0 <maxno ofDLts></maxno | | Applicable to 3.84Mcps TDD only. | GLOBAL | reject |
| >>Time Slot | M | | 9.2.1.56 | | _ | |
| >>Midamble Shift And Burst Type | M | | 9.2.3.4 | | _ | |
| >HS-PDSCH Timeslot Specific Information LCR | | 0 <maxno ofDLtsLCR</maxno | | Applicable to 1.28Mcps TDD only | GLOBAL | reject |
| >>Time Slot LCR | М | | 9.2.3.12a | | - | |
| >>Midamble Shift LCR | М | | 9.2.3.4C | | - | |

| Range bound | Explanation |
|----------------|--|
| | |
| maxnoofCCTrCHs | Maximum number of CCTrCHs for a UE. |
| maxnoofTS | Maximum number of Timeslots for a UE for 3.84Mcps TDD. |
| maxnoofTSLCR | Maximum number of Timeslots for a UE for 1.28Mcps TDD. |
| maxnoofDLts | Maximum number of downlink time slots per Radio Link for |
| | 3.84Mcps TDD. |
| maxnoofDLtsLCR | Maximum number of Downlink time slots per Radio Link for |
| | 1.28Mcps TDD. |

9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| CFN | M | | 9.2.1.9 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | | | , , |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

9.1.24.1 FDD Message

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------------|----------|-------|------------|-------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| UC-ID | M | | 9.2.1.71 | | YES | ignore |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| Cell GAI | 0 | | 9.2.1.5A | | YES | ignore |
| C-RNTI | M | | 9.2.1.14 | | YES | ignore |
| S-RNTI | M | | 9.2.1.54 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| Propagation Delay | M | | 9.2.2.33 | | YES | ignore |
| STTD Support Indicator | M | | 9.2.2.45 | | YES | ignore |
| Closed Loop Mode1 Support | M | | 9.2.2.2 | | YES | ignore |
| Indicator | | | | | | _ |
| Closed Loop Mode2 Support | M | | 9.2.2.3 | | YES | ignore |
| Indicator | | | | | | • |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| URA Information | 0 | | 9.2.1.70B | | YES | ignore |
| Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| DPC Mode Change Support | 0 | | 9.2.2.56 | | YES | ignore |
| Indicator | | | | | | |
| Common Transport Channel | 0 | | 9.2.1.12F | | YES | Ignore |
| Resources Initialisation nNot | | | | | | |
| <u>rR</u> equired | | | | | | |
| Cell Capability Container FDD | 0 | | 9.2.2.D | | YES | ignore |
| SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

9.1.24.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|----------------|---------------------------------------|-------------|-------------------------|
| Managara Tura | N 4 | | Reference | | YES | : |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| UC-ID | M | | 9.2.1.71 | | YES | ignore |
| SAI | M | | 9.2.1.52 | | YES | ignore |
| Cell GAI | 0 | | 9.2.1.5A | | YES | Ignore |
| C-RNTI | M | | 9.2.1.14 | | YES | ignore |
| S-RNTI | M | | 9.2.1.54 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| Rx Timing Deviation | M | | 9.2.3.7A | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| URA Information | 0 | | 9.2.1.70B | | YES | ignore |
| Cell GA Additional Shapes | 0 | | 9.2.1.5B | | YES | ignore |
| Common Transport Channel Resources Initialisation not required | 0 | | 9.2.1.12F | | YES | ignore |
| Cell Capability Container TDD | 0 | | 9.2.3.1a | Applicable to 3.84Mcps TDD only | YES | ignore |
| Cell Capability Container TDD LCR | 0 | | 9.2.3.1b | Applicable to 1.28Mcps TDD only | YES | ignore |
| SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

9.1.24A GERAN UPLINK SIGNALLING TRANSFER INDICATION

| IE/Group Name | Presence | Range | IE type and | Semantics description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|----------------|---|-------------|----------------------|
| | | | reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| UC-ID | M | | 9.2.1.71 | UC-ID may be a GERAN cell identifier. | YES | ignore |
| SAI | М | | 9.2.1.52 | | YES | ignore |
| S-RNTI | M | | 9.2.1.54 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| CN PS Domain Identifier | 0 | | 9.2.1.12 | | YES | ignore |
| CN CS Domain Identifier | 0 | | 9.2.1.11 | | YES | ignore |
| URA Information | 0 | | 9.2.1.70B | URA information may be GRA information | YES | ignore |

9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------|----------|-------|-----------------------------|--------------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | - | |
| C-ID | M | | 9.2.1.6 | May be a GERAN cell identifier | YES | ignore |
| D-RNTI | М | | 9.2.1.24 | | YES | ignore |
| L3 Information | M | | 9.2.1.32 | | YES | ignore |
| D-RNTI Release Indication | M | | 9.2.1.25 | | YES | ignore |

9.1.26 RELOCATION COMMIT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |
| RANAP Relocation Information | 0 | | 9.2.1.47 | | YES | ignore |

9.1.27 PAGING REQUEST

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|------------------------------|----------|-------------------------|-----------|-------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | I | |
| CHOICE Paging Area | M | | | | YES | ignore |
| >URA | | | | | _ | |
| >>URA-ID | M | | 9.2.1.70 | May be a | _ | |
| | | | | GRA-ID. | | |
| >Cell | | | | UTRAN only | ı | |
| >>C-ID | M | | 9.2.1.6 | | - | |
| SRNC-ID | M | | RNC-ID | May be a | YES | ignore |
| | | | 9.2.1.50 | BSC-ID. | | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| IMSI | M | | 9.2.1.31 | | YES | ignore |
| DRX Cycle Length Coefficient | M | | 9.2.1.26 | | YES | ignore |
| CN Originated Page to | | 01 <u>01</u> | | | YES | ignore |
| Connected Mode UE | | | | | | |
| >Paging Cause | M | | 9.2.1.41E | | | |
| >CN Domain Type | M | | 9.2.1.11A | | _ | |
| >Paging Record Type | M | | 9.2.1.41F | | - | |

9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics | Criticality | Assigned |
|-----------------------------|----------|---|----------------|-------------|-------------|-------------|
| | | | Reference | Description | | Criticality |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | • |
| Measurement ID | M | | 9.2.1.37 | | YES | reject |
| CHOICE Dedicated | М | | | | YES | reject |
| Measurement Object Type | | | | | | |
| >RL | | | | | _ | |
| >>RL Information | | 1 <maxn oofRLs></maxn | | | EACH | reject |
| >>>RL-ID | М | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | _ | |
| >>>HS-SICH | | 0 <maxn< td=""><td></td><td>TDD only</td><td>GLOBAL</td><td>reject</td></maxn<> | | TDD only | GLOBAL | reject |
| Information | | oofHSSI CHs> | | | | |
| >>>HS-SICH ID | М | | 9.2.3.3ad | | - | |
| >RLS | | | | FDD only | - | |
| >>RL Set Information | | 1 <maxn< td=""><td></td><td>j</td><td>EACH</td><td>reject</td></maxn<> | | j | EACH | reject |
| | | oofRLSet s> | | | | |
| >>>RL-Set-ID | M | 3/ | 9.2.2.35 | | _ | |
| >ALL RL | | | NULL | | _ | |
| >ALL RLS | | | NULL | FDD only | _ | |
| Dedicated Measurement Type | М | | 9.2.1.18 | • | YES | reject |
| Measurement Filter | 0 | | 9.2.1.36 | | YES | reject |
| Coefficient | | | | | | |
| Report Characteristics | M | | 9.2.1.48 | | YES | reject |
| CFN reporting indicator | M | | FN | | YES | reject |
| | | | reporting | | | |
| | | | indicator | | | |
| | _ | | 9.2.1.28A | | | |
| CFN | 0 | | 9.2.1.9 | | YES | reject |
| Partial Reporting Indicator | 0 | | 9.2.1.41Fa | | YES | ignore |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs a measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets a measurement can be started |
| | on. |

9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------------------------------------|----------------|--|-------------|-------------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | 0 | | | Dedicated Measurement Object Type the measurement was initiated with | YES | ignore |
| >RL or ALL RL | | | | See Note 1 | | |
| >>RL Information | | 1 <maxno ofRLs></maxno | | <u> </u> | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | _ | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | _ | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |
| >>>HS-SICH ID | 0 | | 9.2.3.3ad | TDD only | YES | reject |
| >RLS or ALL RLS | | | | FDD only See Note 2 | _ | |
| >>RL Set Information | | 1 <maxno ofRLSets></maxno | | | EACH | ignore |
| >>>RL Set ID | М | | 9.2.2.35 | | _ | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | _ | |
| >>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | Ignore |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started |
| | on. |

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|--|-----------------------------|--|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | 0 | | | Dedicated Measuremen t Object Type the measuremen t was initiated with | YES | ignore |
| >RL or ALL RL | | | | | - | |
| >>Unsuccessful RL Information | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >>>RL ID | M | | 9.2.1.49 | | - | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | - | |
| >>Successful RL Information | | 0 <maxno ofRLs-1></maxno | | | EACH | ignore |
| >>>RL ID | М | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | _ | |
| >>>Dedicated Measurement Value | M | | 9.2.1.19 | | ı | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | 1 | |
| >RLS or ALL RLS | | | | FDD only | 1 | |
| >>Unsuccessful RL Set Information | | 1 <maxno ofRLSets></maxno | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | ı | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | ı | |
| >>Successful RL Set Information | | 0 <maxno ofRLSets- 1></maxno | | | EACH | ignore |
| >>>RL Set ID | М | | 9.2.2.35 | | _ | |
| >>>Dedicated Measurement Value | М | | 9.2.1.19 | | - | |
| >>>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started |
| | on. |

9.1.31 DEDICATED MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--------------------------------------|----------------|--|-------------|-------------------------------------|
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | M | | | Dedicated Measuremen t Object Type the measuremen t was initiated with | YES | ignore |
| >RL or ALL RL | | | | See Note 1 | _ | |
| >>RL Information | | 1 <maxnoo fRLs></maxnoo | | | EACH | ignore |
| >>>RL-ID | M | | 9.2.1.49 | | _ | |
| >>>DPCH ID | 0 | | 9.2.3.3 | TDD only | _ | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.19A | | _ | |
| >>>HS-SICH ID | 0 | | 9.2.3.3ad | TDD only | YES | reject ignor <u>e</u> |
| >RLS or ALL RLS | | | | FDD only See Note 2 | _ | |
| >>RL Set Information | | 1 <maxnoo fRLSets></maxnoo | | | EACH | ignore |
| >>>RL Set ID | M | | 9.2.2.35 | | _ | |
| >>>Dedicated Measurement Value Information | M | | 9.2.1.19A | | _ | |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started |
| | on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be |
| | started on. |

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | • | 9.2.1.37 | | YES | ignore |

9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|------------------|--|-------------|----------------------|
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| CHOICE Dedicated Measurement Object Type | 0 | | | Dedicated Measuremen t Object Type the measuremen t was initiated with | YES | ignore |
| >RL or ALL RL | | | | | _ | |
| >>Unsuccessful RL Information | | 1 <maxnoof RLs></maxnoof | | | EACH | ignore |
| >>>RL ID | М | | 9.2.1.49 | | - | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | _ | |
| >RLS or ALL RLS | | | | FDD only | ı | |
| >>Unsuccessful RL | | 1 <maxnoof< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoof<> | | | EACH | ignore |
| Set Information | | RLSets> | | | | - |
| >>>RL Set ID | М | | 9.2.2.35 | | ı | |
| >>>Individual Cause | 0 | | Cause 9.2.1.5 | | _ | |

| Range bound | Explanation |
|---------------|---|
| maxnoofRLs | Maximum number of individual RLs the measurement can be started on. |
| maxnoofRLSets | Maximum number of individual RL Sets the measurement can be started |
| | on. |

9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | - | | |
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| D-RNTI | M | | 9.2.1.24 | | YES | ignore |

9.1.35 COMMON TRANSPORT CHANNEL RESOURCES REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|------------------------------------|----------|-------|-------------|---|-------------|-------------------------|
| | | | Reference | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| D-RNTI | M | | 9.2.1.24 | | YES | reject |
| C-ID | 0 | | 9.2.1.6 | | YES | reject |
| Transport Bearer Request Indicator | M | | 9.2.1.61 | Request a new transport bearer or to use an existing bearer for the user plane. | YES | reject |
| Transport Bearer ID | M | | 9.2.1.60 | Indicates the lur transport bearer to be used for the user plane. | YES | reject |
| Permanent NAS UE Identity | 0 | | 9.2.1.73 | | YES | ignore |
| Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |

9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

9.1.36.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| S-RNTI | М | | 9.2.1.53 | | YES | ignore |
| C-RNTI | 0 | | 9.2.1.14 | | YES | ignore |
| FACH Info for UE Selected S-CCPCH | | 1 | | | YES | ignore |
| >FACH Flow Control Information | М | | 9.2.1.26C | | YES | ignore |
| Transport Layer Address | 0 | | 9.2.1.62 | | YES | ignore |
| Binding Identity | 0 | | 9.2.1.3 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| C-ID | М | | 9.2.1.6 | | YES | ianore |

9.1.36.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|------------------------------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Reference | 2000 | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| C-RNTI | 0 | | 9.2.1.14 | | YES | ignore |
| FACH Info for UE Selected S-CCPCHs | | 1 | | | YES | ignore |
| >FACH Flow Control Information | М | | 9.2.1.26C | | YES | ignore |
| Transport Layer Address | 0 | | 9.2.1.62 | | YES | ignore |
| Binding Identity | 0 | | 9.2.1.3 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| C-ID | M | | 9.2.1.6 | | YES | ignore |

9.1.37 COMMON TRANSPORT CHANNEL RESOURCES FAILURE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| S-RNTI | M | | 9.2.1.53 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.38 COMPRESSED MODE COMMAND [FDD]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Active Pattern Sequence Information | М | | 9.2.2.A | | YES | ignore |

9.1.39 ERROR INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Cause | 0 | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| S-RNTI | 0 | | 9.2.1.53 | | YES | ignore |
| D-RNTI | 0 | | 9.2.1.24 | | YES | ignore |

9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|----------------------------|----------|-------|----------------|---|-------------|-------------------------|
| | | | Reference | | \ | |
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | - | |
| DL Time Slot ISCP Info | 0 | | 9.2.3.2D | Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD | YES | ignore |
| DL Time Slot ISCP Info LCR | 0 | | 9.2.3.2F | Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD | YES | ignore |
| Primary CCPCH RSCP | 0 | | 9.2.3.5 | | YES | ignore |

9.1.41 RADIO LINK PREEMPTION REQUIRED INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| RL Information | | 0 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| HS-DSCH MAC-d Flow Specific Information | | 0 <maxno ofMACdFl ows></maxno | | | EACH | ignore |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | - | |

| Range bound | Explanation |
|------------------|--|
| maxnoofRLs | Maximum number of radio links for one UE |
| maxnoofMACdFlows | Maximum number of HS-DSCH MAC-d flows |

9.1.42 RADIO LINK CONGESTION INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Congestion Cause | 0 | | 9.2.1.79 | | YES | ignore |
| RL Information | | 1 <maxno ofRLs></maxno | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DCH Rate Information | | 1 <maxno ofDCHs></maxno | | | EACH | ignore |
| >>DCH ID | М | | 9.2.1.16 | | _ | |
| >>Allowed Rate Information | 0 | | 9.2.1.2A | | _ | |

| Range bound | Explanation |
|-------------|--|
| maxnoofRLs | Maximum number of Radio Links for one UE |
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.1.43 COMMON MEASUREMENT INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|---|--------------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | - | roject |
| Measurement ID | M | | 9.2.1.37 | | YES | reject |
| Wedstrement ib | IVI | | 3.2.1.37 | | 120 | reject |
| CHOICE Common Measurement Object Type >Cell | M | | | | YES - | reject |
| >>Reference Cell Identifier | M | | UTRAN Cell Identifier 9.2.1.71 | May be a GERAN Cell Identifier | - | |
| >>Time Slot | 0 | | 9.2.1.56 | 3.84Mcps TDD only | _ | |
| >>Time Slot LCR | 0 | | 9.2.3.12a | 1.28Mcps TDD only | _ | |
| >>Neighbouring Cell Measurement Information | | 0 <maxnoof MeasNCells ></maxnoof | | UTRAN only | _ | |
| >>>CHOICE Neighbouring Cell Measurement Information | | | | | - | |
| >>>> Neighbouring FDD Cell Measurement Information | | | | FDD only | - | |
| >>>> Neighbouring FDD Cell Measurement Information | M | | 9.2.1.41G | | _ | |
| >>>> Neighbouring TDD Cell Measurement Information | | | | 3.84Mcps TDD only | _ | |
| >>>> Neighbouring TDD Cell Measurement Information | M | | 9.2.1.41H | | - | |
| >>>>Additional Neighbouring Cell Measurement Information | | | | | = | |
| ≥>>> Neighbouring TDD Cell Measurement InformationLC R | | | | 1.28Mcps TDD only | = | |
| >>>>> Neighbourin g TDD Cell Measureme nt InformationL CR | М | | 9.2.1.41Dd | | <u>-YES</u> | <u>reject</u> |
| Common Measurement Type | М | | 9.2.1.12C | | YES | reject |

| Measurement Filter Coefficient | 0 | 9.2.1.41 | UTRAN only | YES | reject |
|--------------------------------|---|---|------------|-----|--------|
| Report Characteristics | M | 9.2.1.48 | | YES | reject |
| SFN reporting indicator | M | FN reporting indicator 9.2.1.28A | | YES | reject |
| SFN | 0 | 9.2.1.52A | UTRAN only | YES | reject |
| Common Measurement Accuracy | 0 | 9.2.1.12A | UTRAN only | YES | reject |

| Range bound | Explanation |
|------------------|---|
| maxnoofMeasNCell | Maximum number of neighbouring cells on which |
| | measurements can be performed. |

9.1.44 COMMON MEASUREMENT INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--|---|-------------|------------------------------------|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Common Measurement Object Type | 0 | | | Common Measuremen t Object Type that the measuremen t was initiated with. | YES | ignore |
| >Cell | | | | | _ | |
| >>Common Measurement value | М | | 9.2.1.12D | | _ | |
| SFN | 0 | | 9.2.1.52A | Common Measuremen t Time Reference, UTRAN only. | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |
| Common Measurement Achieved Accuracy | 0 | | Common Measurem ent Accuracy 9.2.1.12A | UTRAN only | YES | reject <u>ignore</u> |

9.1.45 COMMON MEASUREMENT INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------|----------|-------|------------|-------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.46 COMMON MEASUREMENT REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|-----------------------------|---|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | ı | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| CHOICE Common Measurement Object Type | М | | | Common Measuremen t Object Type that the measuremen t was initiated with. | YES | ignore |
| >Cell | | | | | ı | |
| >>Common Measurement Value Information | M | | 9.2.1.12E | | - | |
| SFN | 0 | | 9.2.1.52A | Common Measuremen t Time Reference, UTRAN only. | YES | ignore |

9.1.47 COMMON MEASUREMENT TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Measurement ID | М | | 9.2.1.37 | | YES | ignore |

9.1.48 COMMON MEASUREMENT FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Measurement ID | M | | 9.2.1.37 | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |

9.1.49 INFORMATION EXCHANGE INITIATION REQUEST

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|----------------|--------------------------------------|-------------|----------------------|
| | | | Refe rence | | | |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | reject |
| CHOICE Information Exchange Object Type | М | | | | YES | reject |
| >Cell | | | | | _ | |
| >>C-ID | M | | 9.2.1.6 | May be a GERAN cell identifier | _ | |
| Information Type | M | | 9.2.1.31E | | YES | reject |
| Information Report Characteristics | M | | 9.2.1.31C | | YES | reject |

9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Information Exchange ID | М | | 9.2.1.31A | | YES | ignore |
| CHOICE Information Exchange Object Type | 0 | | | | YES | ignore |
| >Cell | | | | | - | |
| >>Requested Data Value | М | | 9.2.1.48A | | - | |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.51 INFORMATION EXCHANGE INITIATION FAILURE

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|----------------|--------------------------|-------------|----------------------|
| | | | Refe rence | - | | _ |
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | _ | _ |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.52 INFORMATION REPORT

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| CHOICE Information Exchange Object Type | М | | | | YES | ignore |
| >Cell | | | | | ı | |
| >>Requested Data Value Information | М | | 9.2.1.48B | | _ | |

9.1.53 INFORMATION EXCHANGE TERMINATION REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | ignore |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |

9.1.54 INFORMATION EXCHANGE FAILURE INDICATION

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | 9.2.1.40 | | YES | ignore |
| Transaction ID | M | | 9.2.1.59 | | _ | |
| Information Exchange ID | M | | 9.2.1.31A | | YES | ignore |
| Cause | M | | 9.2.1.5 | | YES | ignore |

9.1.55 RESET REQUEST

| IE/Group Name | Presence | Range | IE Type and Reference | Semantic Solution Soluti | Criticality | Assigned Criticality |
|-----------------------------|----------|--|-----------------------------|--|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| RNC-ID | М | | 9.2.1.50 | Identity of the sending RNC | YES | reject |
| CHOICE Reset Indicator | М | | | | YES | reject |
| >Context | | | | | _ | |
| >>Context Information | | 1 <maxre setContext ></maxre | | | EACH | reject |
| >>>CHOICE Context Type | M | | | | 1 | |
| >>>SRNTI | | | | | _ | |
| >>>>S-RNTI | М | | 9.2.1.53 | | _ | |
| >>>DRNTI | | | | | _ | |
| >>>>D-RNTI | М | | 9.2.1.24 | | _ | |
| >All Contexts | | | NULL | | _ | |
| >Context Group | | | | | _ | |
| >>Context Group Information | | 1 <maxre setContext Groups></maxre | | | EACH | reject |
| >>>S-RNTI Group | М | | 9.2.1.53a | | _ | |

| Range bound | Explanation |
|-----------------------|--|
| maxResetContext | Maximum number of contexts that can be reset by |
| | one RESET message. |
| maxResetContextGroups | Maximum number of context groups that can be reset |
| | by one RESET message. |

9.1.56 RESET RESPONSE

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|-------|-----------------------------|--------------------------------|-------------|-------------------------|
| Message Type | М | | 9.2.1.40 | | YES | reject |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| RNC-ID | М | | 9.2.1.50 | Identity of the sending RNC | YES | ignore |
| Criticality Diagnostics | 0 | | 9.2.1.13 | | YES | ignore |

9.1.57 RADIO LINK ACTIVATION COMMAND

9.1.57.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|----------|--------------------------------------|-----------------------|--------------------------|-------------|-------------------------------------|
| Message Type | М | | 9.2.1.46 | | YES | reject ignor e |
| Transaction ID | М | | 9.2.1.62 | | - | |
| Delayed activation Information | | 1 <maxnoofrl s></maxnoofrl | | | EACH | reject ignor <u>e</u> |
| >RL ID | М | | 9.2.1.49 | | - | |
| >Delayed Activation Update | M | | 9.2.1.19Ab | | - | |

9.1.57.2 TDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|----------|--------------------------------------|--------------------------|--------------------------|-------------|---------------------------------|
| Message Type | M | | 9.2.1.46 | | YES | reject ignor e |
| Transaction ID | М | | 9.2.1.62 | | - | |
| Delayed activation Information | | 1 <maxnoofrl s></maxnoofrl | | | EACH | reject <u>ignor</u> <u>e</u> |
| >RL ID | M | | 9.2.1.49 | | - | |
| >Delayed Activation Update | М | | 9.2.1.19Ab | | - | |

9.1.58 RADIO LINK PARAMETER UPDATE INDICATION

9.1.58.1 FDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|-------------------------------------|-----------------------------|-------------------------|-------------|-------------------------------------|
| Message type | M | | 9.2.1.40 | | YES | reject ignor <u>e</u> |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| HS-DSCH FDD Update Information | 0 | | 9.2.2.19c | | YES | reject ignor <u>e</u> |
| RL Information | | 0 <max noofRLs ></max | | | EACH | reject ignor <u>e</u> |
| >RL ld | M | | 9.2.1.49 | | _ | |
| >Phase Reference Update Indicator | 0 | | 9.2.2.27B | | _ | |

9.1.58.2 TDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|--------------------------------|----------|-------|-----------------------------|-------------------------|-------------|-------------------------------------|
| Message type | M | | 9.2.1.40 | | YES | reject ignor <u>e</u> |
| Transaction ID | М | | 9.2.1.59 | | _ | |
| HS-DSCH TDD Update Information | 0 | | 9.2.3.3ac | | YES | reject ignor e |

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the RNSAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is a contradiction between the tabular format in subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible. See Annex A.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|--|
| Priority Level | M | | | This IE indicates the priority of |
| Fliolity Level | IVI | | INTEGER(0. | This IE indicates the priority of the request. |
| | | | .15) | Usage: |
| | | | | Value "0" means "Spare"; It |
| | | | | shall be treated as a logical |
| | | | | error if received. |
| | | | | Values between 1 and 14 are |
| | | | | ordered in decreasing order of |
| | | | | priority, '1' being the highest |
| | | | | and '14' the lowest. |
| | | | | Value "15" means "No |
| | | | | Priority". |
| Pre-emption Capability | M | | ENUMERAT | |
| | | | ED(shall not | |
| | | | trigger pre- | |
| | | | emption, | |
| | | | may trigger | |
| | | | pre-emption) | |
| Pre-emption Vulnerability | M | | ENUMERAT | |
| | | | ED(not pre- | |
| | | | emptable, | |
| | | | pre- | |
| | | | emptable) | |

9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Allowed Queuing Time | | | INTEGER(160) | Unit: Seconds |

9.2.1.2A Allowed Rate Information

The *Allowed Rate Information* IE indicates the TFI corresponding to the highest allowed bit rate for the uplink and/or the downlink of a DCH. The SRNC is allowed to use any rate being lower than or equal to the rate corresponding to the indicated TFI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|---------------------------|---|
| Allowed UL Rate | 0 | | INTEGER(1maxTFcount) | "1": TFI 0, "2": TFI 1, "3": TFI 2, |
| Allowed DL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |

9.2.1.2B Altitude and Direction

This IE contains a description of Altitude and Direction.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|----------------------------------|---|
| Direction of Altitude | М | | ENUMERAT ED(Height, Depth) | |
| Altitude | M | | INTEGER(02 ¹⁵ -1) | The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <n+1, except="" for="" n="2<sup">15-1 for which the range is extended to include all grater values of (a).</n+1,> |

9.2.1.2C Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| Antenna Co-location | | | ENUMERAT | |
| Indicator | | | ED(co- | |
| | | | located) | |

9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|--|
| Binding ID | | | OCTET STRING (14,) | If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID. |

9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel . BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|--|
| BLER | | | INTEGER(- 630) | Step 0.1. (Range –6.30). It is the Log10 of the BLER |

9.2.1.4A Block STTD Indicator

Void.

9.2.1.4B Burst Mode Parameters

The Burst Mode Parameters IE provides all the relevant information in order to able IPDL in the Burst mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Burst Start | М | | INTEGER(015) | See [10] and [22] |
| Burst Length | M | | INTEGER(1 025) | See [10] and [22] |
| Burst freq | M | | INTEGER(116) | See [10] and [22] |

9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|---|--------------------------|
| CHOICE Cause Group | <u>M</u> | | | |
| >Radio Network Layer | | | | |
| >Radio Network Layer >>Ratio Network Layer Cause | M | | ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, Measurement not Supported For The Object, Combining Resources Not Available, Combining not Supported, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not Elapsed, Number of DL Codes Not Supported, Dedicated Transport Channel Type not Supported, UL Shared Channel Type not Supported, UL Shared Channel Type not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, CM not Supported, Transaction not Supported by Destination Node B, RL Already Activated/Allocated,, Number of UL Codes Not Supported, Cell reserved for operator use, DPC Mode Change not Supported, Information temporarily not available, Information Provision not Supported, RL Timing Adjustment Not Supported, Name Delicated Times Delicated Interest Delicated | |
| >Transport Layer | | | Unknown RNTI) | |
| >>Transport Layer Cause | M | | ENUMERATED (Transport Resource Unavailable, Unspecified,) | |
| >Protocol | | | | |
| >>Protocol Cause | M | | ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified, Abstract Syntax Error (Falsely Constructed Message),) | |
| >Misc | | | ENHIMEDATES | |
| >>Miscellaneous Cause | M | | ENUMERATED (Control Processing Overload, Hardware Failure, O&M Intervention, | |

| | Not enough User Plane Processing | |
|--|----------------------------------|--|
| | Resources, | |
| | Unspecified,) | |

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

| Radio Network Layer cause | Meaning |
|----------------------------------|---|
| Cell not Available | The concerned cell is not available |
| Cell reserved for operator use | The concerned cell is reserved for operator use |
| Combining not Supported | The DRNS does not support the RL combining for the concerned cells |
| Combining Resources Not | The value of the received <i>Diversity Control Field</i> IE was set to 'Must', |
| Available | but the DRNS cannot perform the requested combining |
| CM not Supported | The concerned cell(s) do not support Compressed Mode |
| Common Transport Channel Type | The concerned cell(s) do not support the RACH and/or FACH and/or |
| not Supported | CPCH Common Transport Channel Type |
| Dedicated Transport Channel Type | The concerned cell(s) do not support the Dedicated Transport Channel |
| not Supported | Туре |
| Delayed Activation not Supported | The concerned cell(s) do not support delayed activation of RLs |
| DL Radio Resources not Available | The DRNS does not have sufficient DL radio resources available |
| DL SF not Supported | The concerned cell(s) do not support the requested DL SF |
| DL Shared Channel Type not | The concerned cell(s) do not support the Downlink Shared Channel Type |
| Supported | |
| DPC Mode Change not Supported | The concerned cells do not support the DPC mode changes |
| Information Provision not | The RNS doesn't support provision of the requested information for the |
| supported for the object | concerned object types |
| Information temporarily not | The RNS can temporarily not provide the requested information |
| available | |
| Invalid CM Settings | The concerned cell(s) consider the requested Compressed Mode settings |
| | invalid |
| Measurement not Supported For | At least one of the concerned cell(s) does not support the requested |
| The Object | measurement on the concerned object type |
| Measurement Temporarily not | The DRNS can temporarily not provide the requested measurement value |
| Available | |
| Number of DL Codes not | The concerned cell(s) do not support the requested number of DL codes |
| Supported | |
| Number of UL Codes not | The concerned cell(s) do not support the requested number of UL codes |
| Supported | |
| Power Level not Supported | A DL power level was requested which the concerned cell(s) do not |
| | support |
| Power Balancing status not | The power balancing status in the SRNC is not compatible with that of |
| compatible | the DRNC. |
| RL Timing Adjustment not | The concerned cell(s) do not support adjustments of the RL timing |
| Supported | TILL A LA COLDITA |
| Reconfiguration CFN not Elapsed | The requested action cannot be performed due to that a COMMIT |
| | message was received previously, but the concerned CFN has not yet |
| Deconfiguration 4 - (All J | The SDNC does approach and allow the approach a good forwards. |
| Reconfiguration not Allowed | The SRNC does currently not allow the requested reconfiguration |
| Requested Configuration not | The concerned cell(s) do not support the requested configuration i.e. |
| Supported | power levels, Transport Formats, physical channel parameters, |
| Requested Tx Diversity mode not | The concerned cell(s) do not support the requested transmit diversity |
| Supported | mode |
| RL Already Activated/ Allocated | The DRNS has already allocated an RL with the requested RL ID for this UE Context |
| | OL Context |

| Transaction not Supported by | The requested action cannot be performed due to lack of support of the |
|----------------------------------|---|
| Destination Node B | corresponding action in the destination Node B |
| UL Radio Resources not Available | The DRNS does not have sufficient UL radio resources available |
| UL Scrambling Code Already in | The concerned UL scrambling code is already in use for another UE |
| Use | |
| UL SF not Supported | The concerned cell(s) do not support the requested minimum UL SF |
| UL Shared Channel Type not | The concerned cell(s) do not support the Uplink Shared Channel Type |
| Supported | |
| Unknown C-ID | The DRNS is not aware of a cell with the provided C-ID |
| Unknown RNTI | The SRNC or DRNC is not aware of a UE indicated with the provided |
| | RNTI |
| Unspecified | Sent when none of the above cause values applies but still the cause is |
| _ | Radio Network Layer related |

| Transport Network Layer cause | Meani ng |
|--------------------------------|---|
| Transport resource unavailable | The required transport resources are not available |
| Unspecified | Sent when none of the above cause values applies but still the cause is |
| | Transport Network Layer related |

| Protocol cause | Meaning |
|-----------------------------------|--|
| Abstract Syntax Error (Reject) | The received message included an abstract syntax error and the |
| | concerned criticality indicated "reject" (see subclause 10.3) |
| Abstract Syntax Error (Ignore and | The received message included an abstract syntax error and the |
| Notify) | concerned criticality indicated "ignore and notify" (see subclause 10.3) |
| Abstract syntax error (falsely | The received message contained IEs or IE groups in wrong order or with |
| constructed message) | too many occurrences (see subclause 10.3) |
| Message not Compatible with | The received message was not compatible with the receiver state (see |
| Receiver State | subclause 10.4) |
| Semantic Error | The received message included a semantic error (see subclause 10.4) |
| Transfer Syntax Error | The received message included a transfer syntax error (see subclause |
| | 10.2) |
| Unspecified | Sent when none of the above cause values applies but still the cause is |
| | Protocol related |

| Miscellaneous cause | Meaning |
|----------------------------------|---|
| Control Processing Overload | DRNS control processing overload |
| Hardware Failure | DRNS hardware failure |
| Not enough User Plane Processing | DRNS has insufficient user plane processing resources available |
| Resources | |
| O&M Intervention | Operation and Maintenance intervention related to DRNS equipment |
| Unspecified | Sent when none of the above cause values applies and the cause is not |
| | related to any of the categories Radio Network Layer, Transport Network |
| | Layer or Protocol. |

9.2.1.5A Cell Geographical Area Identity (Cell GAI)

The Cell Geographical Area is used to identify the geographical area of a cell. The area is represented as a polygon. See ref. [25].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------------|----------|--------------------------------------|--|--|
| Cell GAI Geographical Co-ordinates | | 1 <maxnoofpoints></maxnoofpoints> | | |
| >Latitude Sign | М | | ENUMERAT ED(North, South) | |
| >Degrees of Latitude | М | | INTEGER(02 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°) |
| >Degrees of Longitude | М | | INTEGER(-2 ²³ 2 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°) |

| Range bound | Explanation | | |
|---------------|-----------------------------------|--|--|
| maxnoofPoints | Maximum no. of points in polygon. | | |

9.2.1.5B Cell Geographical Area Additional Shapes (Cell GAI Additional Shapes)

This IE is used to provide several descriptions of the geographical area of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-------------------------------|
| CHOICE Cell GAI | | | | |
| Additional Shapes | | | | |
| >GA Point With | | | | |
| Uncertainty | | | | |
| >>GA Point With | M | | 9.2.1.30A | Ellipsoid point with |
| Uncertainty | | | | uncertainty circle |
| >GA Ellipsoid point | | | | |
| with uncertainty Ellipse | | | | |
| >>GA Ellipsoid | M | | 9.2.1.30B | Ellipsoid point with |
| point with uncertainty | | | | uncertainty Ellipse |
| Ellipse | | | | |
| >GA Ellipsoid point | | | | |
| with altitude | | | | |
| >>GA Ellipsoid | M | | 9.2.1.30C | Ellipsoid point with altitude |
| point with altitude | | | | |
| >GA Ellipsoid point | | | | |
| with altitude and | | | | |
| uncertainty Ellipsoid | | | | |
| >>GA Ellipsoid | M | | 9.2.1.30D | Ellipsoid point with altitude |
| point with altitude | | | | and uncertainty Ellipsoid |
| and uncertainty | | | | |
| Ellipsoid | | | | |
| >GA Ellipsoid Arc | | | | |
| >>GA Ellipsoid Arc | M | | 9.2.1.30E | Ellipsoid Arc |

9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. *Cell Capacity Class Value* IE is the value that classifies the cell capacity with regards to the other cells. *Cell Capacity Class Value* IE only indicates resources that are configured for traffic purposes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------------|----------|-------|-----------------------|--|
| Uplink Cell Capacity Class Value | М | | INTEGER(1100,) | Value 1 shall indicate the minimum uplink cell capacity, and 100 shall indicate the maximum uplink cell capacity. There should be linear relation between uplink cell capacity and Uplink Cell Capacity Class Value. |
| Downlink Cell Capacity Class Value | М | | INTEGER(1. .100,) | Value 1 shall indicate the minimum downlink cell capacity, and 100 shall indicate the maximum downlink cell capacity. There should be linear relation between downlink cell capacity and Downlink Cell Capacity Class Value. |

9.2.1.6 Cell Identifier (C-ID)

The C-ID (Cell Identifier) is the identifier of a cell in one RNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| C-ID | | | INTEGER | |
| | | | (065535) | |

9.2.1.7 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a Primary-CPICH[FDD]/ Primary-CCPCH[TDD] or for GSM Carrier RSSI according to [16].

| | | and Reference | |
|------------------------|--|---------------------|---|
| Cell Individual Offset | | INTEGER(-20+20) | -20 -> -10dB -19 -> -9.5dB +20 -> +10dB |

9.2.1.8 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| Cell Parameter ID | | | INTEGER(0. | |
| | | | .127,) | |

9.2.1.9 CFN

Connection Frame Number for the radio connection, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| CFN | | | INTEGER(0. | |
| | | | . 255) | |

9.2.1.10 CFN Offset

Void

9.2.1.11 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |

9.2.1.11A CN Domain Type

Identifies the type of core network domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| CN Domain Type | | | ENUMERAT | See in [16] |
| • | | | ED(CS | |
| | | | domain, PS | |
| | | | domain, | |
| | | | Don't | |
| | | | care,) | |

9.2.1.12 CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| RAC | M | | OCTET STRING (1) | |

9.2.1.12A Common Measurement Accuracy

The Common Measurement Accuracy IE indicates the accuracy of the common measurement.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|---|-----------------------|
| CHOICE Common Measurement Accuracy | M | | | |
| >T _{UTRAN-GPS} Measurement Accuracy Class | | | | |
| >>T _{UTRAN-GPS} Measurement Accuracy Class | М | | T _{UTRAN-GPS} Accuracy Class 9.2.1.59B | |

9.2.1.12B Common Measurement Object Type

Void.

9.2.1.12C Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--|---|
| Common Measurement Type | | | ENUMERATED (UTRAN GPS Timing of Cell Frames for UE Positioning, SFN-SFN Observed Time Difference, load, transmitted carrier power, received total wide band power, UL timeslot ISCP,, RT Load, NRT Load Information) | UL timeslot ISCP shall only be used by TDD. For measurements, which are requested on the lur-g interface, only load, RT Load and NRT Load information are used. |

9.2.1.12D Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|---|-----------------------|
| CHOICE Common | | | | |
| Measurement Value | | | | |
| → T _{UTRANGPS} Measurement Value Information | | | | UTRAN only |
| >>Tutranges Measurement Value Information | M | | 9.2.1.59D | |
| > SFN-SFN Measurement Value Information | | | | UTRAN only |
| >>SFN-SFN-Measurement Value Information | M | | 9.2.1.52C | |
| → Load Value | | | | |
| >>Load Value | M | | 9.2.1.33A | |
| Transmitted Carrier Power Value | | | | UTRAN only |
| >>Transmitted Carrier Power Value | M | | Transmitted Carrier Power 9.2.1.59A | |
| ->Received Total Wide Band Power Value | | | | UTRAN only |
| >>Received Total Wide Band Power Value | M | | Received Total Wide Band Power 9.2.2.35A | |
| >UL Timeslot ISCP Value | | | | TDD Only |
| >>UL Timeslot ISCP Value | M | | UL Timeslot ISCP 9.2.3.13A | |
| >RT Load Value | | | | |
| >>RT Load Value | M | | 9.2.1.50B | |
| >NRT Load Information Value | | | | |
| >>NRT Load Information Value | M | | 9.2.1.411 | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|------------|-------|-----------------------|--------------------------|-------------|-------------------------|
| CHOICE Common | N/I | | Relefence | Description | | Criticality |
| | <u>M</u> | | | | = | |
| Measurement Value | | | | UTRAN only | | |
| <u>> T</u> _{UTRAN-GPS} Measurement Value | | | | <u>OTRAIN ONLY</u> | = | |
| <u>Information</u> | | | | | | |
| >>T _{UTRAN-GPS} | M | | 9.2.1.59D | | | |
| Measurement | <u>IVI</u> | | <u>9.2.1.39D</u> | | = | |
| Value Information | | | | | | |
| > SFN-SFN | | | | UTRAN only | _ | |
| Measurement Value | | | | OTTAN OHIY | Ξ | |
| Information | | | | | | |
| >>SFN-SFN | M | | 9.2.1.52C | | _ | |
| Measurement | 101 | | 3.2.1.320 | | Ξ | |
| Value Information | | | | | | |
| >Load Value | | | | | _ | |
| >>Load Value | M | | 9.2.1.33A | | _ | |
| >Transmitted Carrier | 101 | | 0.2.1.00/1 | UTRAN only | = | |
| Power Value | | | | <u>STICK COMY</u> | _ | |
| >>Transmitted | M | | Transmitted | | _ | |
| Carrier Power | <u></u> | | Carrier Power | | _ | |
| Value | | | 9.2.1.59A | | | |
| >Received Total | | | | UTRAN only | = | |
| Wide Band Power | | | | | _ | |
| Value | | | | | | |
| >>Received Total | M | | Received | | = | |
| Wide Band Power | _ | | Total Wide | | _ | |
| Value | | | Band Power | | | |
| | | | 9.2.2.35A | | | |
| >UL Timeslot ISCP | | | | TDD Only | = | |
| <u>Value</u> | | | | | _ | |
| >>UL Timeslot | <u>M</u> | | UL Timeslot | | = | |
| ISCP Value | | | <u>ISCP</u> | | | |
| | | | 9.2.3.13A | | | |
| >Additional Common | | | | | = | |
| Measurement Values | | | | | | |
| >>RT Load Value | | | | | = | |
| >>>RT Load | <u>M</u> | | 9.2.1.50B | | <u>YES</u> | <u>ignore</u> |
| <u>Value</u> | | | | | | |
| >>NRT Load | | | | | = | |
| Information Value | | | | | | |
| >>>NRT Load | <u>M</u> | | 9.2.1.411 | | <u>YES</u> | <u>ignore</u> |
| Information Value | | | | | | |

9.2.1.12E Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|----------------------------|----------|-------|-------------|-----------------------|
| | | | Refe rence | |
| CHOICE Measurement | M | | | |
| Availability | | | | |
| >Measurement Available | | | | |
| >>Common Measurement | M | | 9.2.1.12D | |
| Value | | | | |
| >Measurement not Available | | | NULL | |

9.2.1.12F Common Transport Channel Resources Initialisation and Required

If present, this IE indicates that as far as the DRNC is concerned, there is no need to initiate a Common Transport Channel Resources Initialisation procedure if the SRNC wants to allocate common transport channel resources in the new cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| Common Transport | | | ENUMERAT | |
| Channel Resources | | | ED(Not | |
| Initialisation ANot | | | Required) | |
| Required | | | . , | |

9.2.1.12G Coverage Indicator

The Coverage Indicator indicates whether the serving and the neighbouring cell are overlapped, i.e. the cells have approximately same coverage area or whether the neighbouring cell covers or contained in the serving cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|-----------------------|
| Coverage Indicator | | | ENUMERAT | |
| | | | ED(Overlap, | |
| | | | Covers, | |
| | | | Contained | |
| | | | in,) | |

9.2.1.13 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by an RNC when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the Criticality Diagnostics IE, see Annex C.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|---|--|-------------|----------------------|
| Procedure ID | | 01 | | Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error | - | · |
| >Procedure Code | М | | INTEGER(0255 | | - | |
| >Ddmode | M | | ENUMERATED(FDD, TDD, Common) | Common = common to FDD and TDD. Common Ddmode is also applicable for lurg procedures listed in section 7. | - | |
| Triggering Message | 0 | | ENUMERATED(i nitiating message, successful outcome, unsuccessful outcome, outcome) | The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. | - | |
| Procedure Criticality | 0 | | ENUMERATED(r eject, ignore, notify) | This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). | - | |
| Transaction ID | 0 | | Transaction ID | , | - | |
| Information Element Criticality Diagnostics | | 0 <max noof errors></max | | | - | |
| >IE Criticality | М | | ENUMERATED(r eject, ignore, notify) | The IE Criticality is used for reporting the criticality of the triggering IE. The value 'Ignore" shall never be used. | - | |
| >IE ID | M | | INTEGER(0655 35) | The IE ID of the not understood or missing IE as defined in the ASN.1 part of the specification. | - | |
| >Repetition Number | 0 | | INTEGER(0255) | The Repetition Number IE gives In case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence In case of a missing IE: The number of occurrences up to but not including the missing occurrence. | - | |

| | | | Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them. | | |
|-----------------------|---|---|--|-----|--------|
| >Message Structure | 0 | 9.2.1.39A | The Message Structure IE describes the structure in which the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message. | YES | ignore |
| >Type of Error | М | ENUMERATED(not understood, missing,) | | YES | ignore |

| Range bound | Explanation |
|---------------|--|
| maxnooferrors | Maximum number of IE errors allowed to be reported with a single |
| | message. |

9.2.1.14 C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE Context has one unique C-RNTI value allocated in the DRNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| C-RNTI | | | INTEGER(0. | |
| | | | .65535) | |

9.2.1.14A CTFC

The CTFC is an integer number calculated in accordance with [16], subclause 14.10. Regarding the channel ordering, for all transport channels, 'TrCH1' corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. 'TrCH2' corresponds to the transport channel having the next lowest transport channel identity, and so on.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|-------------------------|-----------------------|
| | | | Reference | |
| CHOICE CTFC Format | | | | |
| >2 bits long | | | | |
| >>CTFC value | <u>M</u> | | INTEGER (03) | |
| >4 bits long | | | | |
| >>CTFC value | <u>M</u> | | <u>INTEGER (015)</u> | |
| >6 bits long | | | | |
| >>CTFC value | <u>M</u> | | <u>INTEGER (063)</u> | |
| >8 bits long | | | | |
| >>CTFC value | M | | <u>INTEGER (0255)</u> | |
| >12 bits long | | | | |
| >>CTFC value | <u>M</u> | | <u>INTEGER (04095)</u> | |
| >16 bits long | | | | |
| >>CTFC value | <u>M</u> | | <u>INTEGER (065535)</u> | |
| >max nb bits long | | • | | |
| >>CTFC value | <u>M</u> | • | INTEGER | |
| | | | (0maxCTFC) | |

| Range Bound | <u>Explanation</u> |
|----------------|---|
| <u>MaxCTFC</u> | Maximum number of the CTFC value is calculated according to the |
| | following: |
| | |
| | $\sum (L_i - 1)P_i$ |
| | <i>i</i> =1 |
| | with the notation according to ref. [16] |

9.2.1.15 DCH Combination Indicator

Void

9.2.1.16 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| DCH ID | | | INTEGER | |
| | | | (0255) | |

9.2.1.16A DCH Information Response

The *DCH Information* IE provides information for DCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------|----------|--|-----------------------------|--------------------------|-------------|-------------------------|
| DCH Information Response | | 1 <maxno< th=""><th></th><th></th><th>_</th><th></th></maxno<> | | | _ | |
| | | ofDCHs> | | | | |
| >DCH ID | M | | 9.2.1.16 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >Allowed Rate Information | 0 | | 9.2.1.2A | | YES | ignore |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.1.17 Dedicated Measurement Object Type

Void.

9.2.1.18 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------------|----------|-------|-----------------------|---|
| | | | Reference | |
| Dedicated Measurement Type | Fresence | Kange | | RSCP and HS-SICH Receptions Quality are used by TDD only, Rx Timing Deviation is used by 3.84 TDD only, Rx Timing Deviation LCR is used by 1.28 TDD only, Round Trip Time, SIR Error are used by FDD only. Angle Of Arrival LCR is used by 1.28Mcps TDD only. |
| | | | LCR, HS-SICH | |
| | | | Reception Quality) | |

NOTE: For definitions of the measurement types refer to ref. [11] and [14].

9.2.1.19 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|---|--|-------------|-------------------------|
| CHOICE Dedicated | M | | | | _ | |
| Measurement Value | | | | | | |
| >SIR Value | N.4 | | INITEGED/ | A | _ | |
| >>SIR Value | M | | INTEGER(063) | According to mapping in ref. [23] and [24] | _ | |
| >SIR Error Value | | | | FDD Only | | |
| >>SIR Error Value | M | | INTEGER(0125) | According to mapping in [23] | _ | |
| >Transmitted Code Power Value | | | | | - | |
| >>Transmitted Code Power Value | M | | INTEGER(0127) | According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used. | 1 | |
| >RSCP | | | | TDD Only | _ | |
| >>RSCP | М | | INTEGER(0127) | According to mapping in ref. [24] | - | |
| >Rx Timing Deviation Value | | | | 3.84Mcps TDD Only | _ | |
| >>Rx Timing Deviation | М | | INTEGER(08191) | According to mapping in [24] | - | |
| >Round Trip Time | | | | FDD Only | _ | |
| >>Round Trip Time | М | | INTEGER(032767) | According to mapping in [23] | _ | |
| >Additional Dedicated Measurement Values | | | | | _ | |
| >>Rx Timing Deviation Value LCR | | | | 1.28Mcps TDD Only | YES | reject |
| >>>Rx Timing Deviation LCR | М | | INTEGER(0511) | According to mapping in [24] | 1 | |
| >>Angle of Arrival Value LCR | | | | 1.28Mcps TDD only | YES | reject |
| >>>AOA LCR | М | | INTEGER(0719) | According to mapping in [24] | _ | |
| >>>AOA LCR Accuracy Class | M | | ENUMER ATED(A, B, C, D, E, F, G, H,) | According to mapping in [24] | _ | |
| >>HS-SICH reception quality | | | | Applicable to TDD only | _ | |
| >>>HS-SICH reception quality Value | | 1 | | | YES | reject |
| >>>>Failed HS-SICH | М | | INTEGER (020) | According to mapping in [23] | _ | |
| >>>Missed HS-SICH | М | | INTEGER (020) | According to mapping in [23] | - | |
| >>>Total HS-SICH | M | | INTEGER (020) | According to mapping in [23] | _ | |

9.2.1.19A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message and if provided also the Dedicated Measurement Value itself.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--|-------------|-------------------------|
| CHOICE Measurement Availability Indicator | М | | | | _ | |
| >Measurement Available | | | | | _ | |
| >>Dedicated Measurement Value | М | | 9.2.1.19 | | _ | |
| >>CFN | 0 | | 9.2.1.9 | Dedicated Measuremen t Time Reference | - | |
| >Measurement not Available | | | NULL | | _ | |

9.2.1.19Aa Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| CHOICE Delayed Activation | M | | | |
| > CFN | | | | |
| >> Activation CFN | M | | CFN 9.2.1.7 | |
| > Separate Indication | | | NULL | |

9.2.1.19Ab Delayed Activation Update

The Delayed Activation Update IE indicates a change of the activation of the DL power for a specific RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|-----------------------|
| CHOICE Delayed Activation | M | | | |
| Update | | | | |
| > Activate | | | | |
| >> CHOICE Activation Type | <u>M</u> | | | |
| >>> Synchronised | | | | |
| >>>> Activation CFN | M | | CFN 9.2.1.7 | |
| >>> Unsynchronised | | | NULL | |
| _>> Initial DL TX Power | M | | DL Power | |
| | | | 9.2.1.21 | |
| >> First RLS Indicator | 0 | | 9.2.2.16A | FDD Only |
| >> Propagation Delay | 0 | | 9.2.2.35 | FDD Only |
| > Deactivate | | | | |
| >> CHOICE Deactivation type | M | | | |
| >>> Synchronised | | | | |
| >>>> Deactivation CFN | M | | CFN 9.2.1.7 | |
| >>> Unsynchronised | | | NULL | |

9.2.1.19B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------------------------|--|---|
| GPS TOW | М | | INTEGER(0604799) | Time in seconds. This field indicates the baseline time for which the corrections are valid |
| Status/Health | M | | ENUMERAT ED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data) | This field indicates the status of the differential corrections |
| Satellite DGPS Corrections Information | | 1 <maxnosat></maxnosat> | | |
| >SatID | M | | SAT ID 9.2.1.50A | Satellite ID |
| >IODE | M | | BIT STRING(8) | This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eightbit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations. |
| >UDRE | M | | ENUMERAT ED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE,) | User Differential Range Error. This field provides an estimate of the uncertainty (1- o) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite |
| >PRC | М | | INTEGER(-20472047) | Scaling factor 0.32 meters |
| >Range Correction Rate | М | | INTEGER(- 127 127) | Scaling factor 0.032 m/s |

| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.19C Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The DRNS shall use this information to discard out-of-date MAC-hs SDUs from the HSDPA Priority Queues.

| IE/Group Name | Presence | Range | IE type and | Semantics description |
|---------------|----------|-------|--------------|-----------------------|
| | | | reference | |
| Discard Timer | | | ENUMERAT | Unit: ms |
| | | | ED (20, 40, | |
| | | | 60, 80, 100, | |
| | | | 120, 140, | |
| | | | 160, 180, | |
| | | | 200, 250, | |
| | | | 300, 400, | |
| | | | 500, 750, | |
| | | | 1000, 1250, | |
| | | | 1500, 1750, | |
| | | | 2000, 2500, | |
| | | | 3000, 3500, | |
| | | | 4000, 4500, | |
| | | | 5000, 7500, | |
| | | |) | |

9.2.1.20 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--|-----------------------|
| Diversity Control Field | | | ENUMERAT ED(May, Must, Must not,) | |

9.2.1.21 Diversity Indication

Void.

9.2.1.21A DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell [FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols]. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[TDD - If referred to a DPCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|--|
| DL Power | | | INTEGER (- 350150) | Value = DL Power /10 Unit dB Range –35.0 +15.0 Step 0.1dB |

9.2.1.22 Downlink SIR Target

Void

9.2.1.23 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| DPCH Constant Value | | | INTEGER (- | Unit dB |
| | | | 1010) | Granularity 1 dB. |

9.2.1.24 D-RNTI

The D-RNTI identifies the UE Context in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| D-RNTI | | | INTEGER(0. | |
| | | | .2^20 -1) | |

9.2.1.25 D-RNTI Release Indication

The D-RNTI Release Indication indicates whether or not a DRNC shall release the D-RNTI allocated for a particular UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| D-RNTI Release Indication | | | ENUMERAT | |
| | | | ED(Release | |
| | | | D-RNTI, not | |
| | | | Release | |
| | | | D-RNTI) | |

9.2.1.26 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|--|
| DRX Cycle Length | | | INTEGER | Refers to 'k' in the formula as |
| Coefficient | | | (39) | specified in ref. [15], Discontinuous Reception. |

9.2.1.26A DSCH ID

The DSCH ID is the identifier of an active downlink shared channel. It is unique for each active DSCH among the active DSCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| DSCH ID | | | INTEGER | |
| | | | (0255) | |

9.2.1.26Aa DSCH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before new credits are received from the DRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--------------------------|----------|-------|-----------------------|---|
| DSCH Initial Window Size | | | INTEGER (1255) | Number of MAC-c/sh SDUs: 255 = Unlimited number of MAC-c/sh SDUs. |

9.2.1.26B DSCH Flow Control Information

The DSCH Flow Control Information IE provides flow control information for each scheduling priority class for the DSCH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|--|--|--------------------------|-------------|-------------------------|
| DSCH Flow Control Information | | 116 | | | - | |
| >DSCH Scheduling Priority | M | | Scheduling Priority Indicator 9.2.1.51A | | - | |
| >MAC-c/sh SDU Length | | 1 <maxnb MAC- c/shSDUL ength></maxnb | | | - | |
| >>MAC-c/sh SDU Length | M | | 9.2.1.34 | | _ | |
| >DSCH Initial Window Size | 0 | | 9.2.1.26Aa | | YES | Ignore |

| Range bound | Explanation |
|------------------------|---|
| maxNbMAC-c/shSDULength | Maximum number of different MAC-c/sh SDU lengths. |

9.2.1.26Ba DSCH-RNTI

DSCH-RNTI is the UE identifier allocated by DRNS to be used over the radio interface by UEs having one or several DSCHs [TDD – and/or USCHs]. It is unique within a cell.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|-----------------------|-----------------------|
| DSCH-RNTI | | | INTEGER(0. | |
| | | | .65535) | |

9.2.1.26Bb Extended GSM Cell Individual Offset

Extended GSM Cell individual offset is an offset that will be applied by UE to the measurement results for GSM carrier RSSI according to [16]. It shall be used when the offset exceeds the range of values that can be indicated using the *Cell Individual Offset* IE (Subclause 9.2.1.7).

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------------|----------|-------|-------------|--------------------------------|
| | | | Reference | |
| Extended GSM Cell Individual | | | INTEGER (- | Unit in dB. Step size is 1 dB. |
| Offset | | | 5011 | - |
| | | | 1150) | |

9.2.1.26C FACH Flow Control Information

The FACH Flow Control Information IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|--|--|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| FACH Flow Control Information | | 116 | | | _ | |
| >FACH Scheduling Priority | M | | Scheduling Priority Indicator 9.2.1.51A | | - | |
| >MAC-c/sh SDU Length | | 1 <maxnb MAC- c/shSDUL ength></maxnb | | | _ | |
| >>MAC-c/sh SDU Length | M | | 9.2.1.34 | | _ | |
| >FACH Initial Window Size | M | | 9.2.1.27 | | _ | |

| Range bound | Explanation |
|------------------------|---|
| maxNbMAC-c/shSDULength | Maximum number of different MAC-c/sh SDU lengths. |

9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------------|----------|-------|---------------|---|
| | | | Reference | |
| FACH Initial Window Size | | | INTEGER(0255) | Number of frames (MAC-c/sh SDUs.) |
| | | | | 255 = Unlimited number of FACH data frames. |

9.2.1.28 FACH Priority Indicator

Void

9.2.1.28A FN Reporting Indicator

Frame Number reporting indicator.

Indicates if the SFN or CFN shall be included together with the reported measurement value.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------|----------|-------|---------------|-----------------------|
| | | | Reference | |
| FN reporting indicator | | | ENUMERAT | |
| _ | | | ED(FN | |
| | | | reporting | |
| | | | required, FN | |
| | | | reporting not | |
| | | | required) | |

9.2.1.29 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/DSCH for temporary restriction of the allocated resources due overload reason.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Frame Handling Priority | | | INTEGER | 0=Lowest Priority, |
| | | | (015) | |
| | | | | 15=Highest Priority |

9.2.1.30 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame __Oeffset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Frame Offset | | | INTEGER | Frames |
| | | | (0255) | |

9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|--------------------------|--|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Uncertainty Code | М | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1) |

9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Uncertainty Ellipse | M | | 9.2.1.68A | |
| Confidence | M | | INTEGER(| |
| | | | 0127) | |

9.2.1.30C GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |

9.2.1.30D GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |
| Uncertainty Ellipse | M | | 9.2.1.68A | |
| Uncertainty Altitude | M | | INTEGER(| |
| | | | 0127) | |
| Confidence | M | | INTEGER(| |
| | | | 0127) | |

9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|----------------------------------|---|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Inner radius | M | | INTEGER(02 ¹⁶ -1) | The relation between the value (N) and the radius (r) in meters it describes is 5N≤ r <5(N+1), except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r). |
| Uncertainty radius | M | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 -1) |
| Offset angle | M | | INTEGER(0179) | The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1) |
| Included angle | М | | INTEGER(0179) | The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1) |
| Confidence | М | | INTEGER(0127) | |

9.2.1.30F Geographical Coordinates

This IE contains the description of geographical coordinates.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--|--|
| Latitude Sign | M | | ENUMERAT ED(North, South) | |
| Degrees Of Latitude | M | | INTEGER(02 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°) |
| Degrees Of Longitude | M | | INTEGER(-2 ²³ 2 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°) |

9.2.1.30Fa GERAN Cell Capability

The GERAN Cell Capability IE is used to transfer the capabilities of a certain GERAN cell via the Iur interface.

| IE/Group Name | Presence | Range | IE type and | Semantics description |
|-----------------------|----------|-------|--------------------|---|
| | | | reference | |
| GERAN Cell Capability | M | | BIT STRING (16) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: A/Gb mode. The second bit: lu mode. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.1.30Fb GERAN Classmark

The GERAN Classmark IE is used to transfer the capabilities of a certain GERAN Iu-mode capable cell via the Iur interface.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------|----------|-------|-----------------------|--------------------------|
| GERAN Classmark | М | | OCTET STRING | Contents defined in [38] |

9.2.1.30G GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|--------------------------------|--------------------------|-----------------------|
| WN _a | М | | BIT STRING(8) | |
| Satellite Almanac Information | М | 1 <maxno Sat></maxno | | |
| >DataID | М | | INTEGER (03) | |
| >SatID | М | | SAT ID 9.2.1.50A | Satellite ID |
| >e | M | | BIT STRING(16) | |
| >t _{oa} | М | | BIT STRING(8) | |
| >δl | М | | BIT STRING(16) | |
| >OMEGADOT | М | | BIT STRING(16) | |
| >SV Health | М | | BIT STRING(8) | |
| >A ^{1/2} | M | | BIT STRING(24) | |
| >OMEGA ₀ | М | | BIT STRING(24) | |
| >M ₀ | М | | BIT STRING(24) | |
| >0 | М | | BIT STRING(24) | |
| >af ₀ | М | | BIT STRING(11) | |
| >af₁ | М | | BIT STRING(11) | |
| SV Global Health | 0 | | BIT STRING(364) | |

| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.30H GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [30].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| α_0 | M | | BIT STRING(8) | |
| α_1 | M | | BIT STRING(8) | |
| α_2 | М | | BIT STRING(8) | |
| α_3 | M | | BIT STRING(8) | |
| β_0 | M | | BIT STRING(8) | |
| β ₁ | М | | BIT STRING(8) | |
| β_2 | М | | BIT STRING(8) | |
| β_3 | М | | BIT STRING(8) | |

9.2.1.30I GPS Navigation Model and Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [30].

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------------------------|-----------------------|--|
| Navigation Message 1to3 | | 1 <maxnosat></maxnosat> | | |
| >Transmission TOW | М | | INTEGER0 1048575) | Time of the Week when the message is broadcast. |
| >SatID | M | | SAT ID 9.2.1.50A | Satellite ID of the satellite from which the information is obtained |
| >TLM Message | М | | BIT STRING(14) | |
| >Tlm Revd (C) | М | | BIT STRING(2) | |
| >HO-Word | М | | BIT STRING(22) | |
| >WN | М | | BIT STRING(10) | |
| >C/A or P on L2 | М | | BIT STRING(2) | |
| >User Range Accuracy Index | М | | BIT STRING(4) | |
| >SV Health | М | | BIT STRING(6) | |
| >IODC | М | | BIT STRING(10) | |
| >L2 P Data Flag | М | | BIT STRING(1) | |
| >SF 1 Reserved | М | | BIT STRING(87) | |
| >T _{GD} | М | | BIT STRING(8) | |
| >t _{oc} | М | | BIT STRING(16) | |
| >af ₂ | М | | BIT STRING(8) | |
| >af₁ | М | | BIT STRING(16) | |
| >af ₀ | М | | BIT STRING(22) | |
| >C _{rs} | М | | BIT STRING(16) | |
| >∆n | М | | BIT STRING(16) | |
| >M ₀ | М | | BIT STRING(32) | |
| >C _{uc} | М | | BIT STRING(16) | |
| >e | М | | BIT STRING(32) | |
| >C _{us} | М | | BIT STRING(16) | |
| >(A) ^{1/2} | М | | BIT STRING(32) | |
| >t _{oe} | М | | BIT STRING(16) | |
| >Fit Interval Flag | M | | BIT STRING(1) | |
| >AODO | М | | BIT STRING(5) | |
| >C _{ic} | M | | BIT STRING(16) | |
| >OMEGA ₀ | M | | BIT STRING(32) | |
| >C _{is} | M | | BIT STRING(16) | |
| >i ₀ | М | | BIT STRING(32) | |

| >C _{rc} | M | BIT |
|------------------|---|------------|
| | | STRING(16) |
| >ω | M | BIT |
| | | STRING(32) |
| >OMEGAdot | M | BIT |
| | | STRING(24) |
| >ldot | M | BIT |
| | | STRING(14) |
| >Spare/zero fill | M | BIT |
| | | STRING(20) |

| Range Bound | Explanation |
|-------------|---|
| maxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.30J GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and | Semantics Description |
|--------------------------------|----------|---|-------------|-----------------------|
| | | | Reference | |
| CHOICE Bad Satellites Presence | M | | | |
| >Bad Satellites | | | | |
| >>Satellite information | | 1 <maxn< td=""><td></td><td></td></maxn<> | | |
| _ | | oSat> | | |
| >>>BadSatID | M | | SAT ID | Satellite ID |
| | | | 9.2.1.50A | |
| >No Bad Satellites | | | NULL | |

| Range Bound | Explanation |
|-------------|---|
| MaxNoSat | Maximum number of satellites for which information can be |
| | provided |

9.2.1.30K GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | M | | 9.2.1.2B | |

9.2.1.30L GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [30].

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| A ₁ | M | | BIT STRING(24) | |
| A ₀ | М | | BIT STRING(32) | |
| t _{ot} | M | | BIT STRING(8) | |
| Δt_{LS} | М | | BIT STRING(8) | |
| W N _t | М | | BIT STRING(8) | |
| WN _{LSF} | M | | BIT STRING(8) | |
| DN | M | | BIT STRING(8) | |
| Δt_{LSF} | М | | BIT STRING(8) | |

9.2.1.30M Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|---------------------------|---|
| Guaranteed UL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |
| Guaranteed DL Rate | 0 | | INTEGER(1. .maxTFcount | "1": TFI 0, "2": TFI 1, "3": TFI 2, |

9.2.1.30N HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| HCS Prio | | | INTEGER | 0=Lowest Priority, |
| | | | (07) | |
| | | | | 7=Highest Priority |

9.2.1.30Na HS-DSCH Initial Capacity Allocation

The *HS-DSCH Initial Capacity Allocation* IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iur.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|-------------------------------------|----------|----------------|--------------------------------|--------------------------|-------------|-------------------------|
| HS-DSCH Initial Capacity Allocation | | 116 | | | _ | |
| Scheduling Priority Indicator | M | | 9.2.1.51A | | _ | |
| >Maximum MAC-d PDU Size | M | | MAC-d PDU-Size 9.2.1.34A | | - | |
| >HS-DSCH Initial Window Size | M | | 9.2.1.30Nb | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------------|----------|---------------------------------------|-----------------------------|-----------------------|
| HS-DSCH Initial Capacity Allocation | | 1< maxNoofP riorityClas ses> | | |
| Scheduling Priority Indicator | M | | 9.2.1.51A | |
| >Maximum MAC-d PDU Size | M | | MAC-d PDU Size 9.2.1.34A | |
| >HS-DSCH Initial Window Size | M | | 9.2.1.30Nb | |

| Range Bound | Explanation |
|------------------------|---|
| maxNoofPriorityClasses | Maximum number of HS-DSCH Scheduling Priorities |

9.2.1.30Nb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs that may be transmitted before new credits are received from the DRNC.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|------------------------|----------|-------|-----------------------|----------------------------|
| HS-DSCH Initial Window | | | INTEGER | Number of MAC-d PDUs: |
| Size | | | (12047) | 2047 = Unlimited number of |
| | | | | MAC-d PDUs. |

9.2.1.300 HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| HS-DSCH MAC-d Flow ID | | | INTEGER (07) | |

9.2.1.30Oa HS-DSCH Physical Layer Category

The HS-DSCH Physical Layer Category IE defines a set of UE radio access capabilities related to HSDPA, as defined in [42].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|--------------------------|-----------------------|
| HS-DSCH Physical Layer | | | INTEGER (164,) | |
| Category | | | | |

9.2.1.30P HS-DSCH-RNTI

The HS-DSCH-RNTI is needed for the UE-specific CRC in HS-SCCH and HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| HS-DSCH-RNTI | | | INTEGER | |
| | | | (065535) | |

9.2.1.30Q HS-DSCH Information To Modify

The $\emph{HS-DSCH}$ $\emph{Information To Modify}$ IE provides information for HS-DSCH to be modified.

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| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|--|---|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information | | 0 <maxno ofMACdFl ows></maxno | - No. or | | _ | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.300 | | _ | |
| >Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >Transport Bearer Request Indicator | M | | 9.2.1.61 | | _ | |
| >Traffic Class | 0 | | 9.2.1.58A | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| Priority Queue Information | | 0 <maxno ofPrioQue ues></maxno | | | _ | |
| >CHOICE Priority Queue | М | | | | _ | |
| >>Add Priority Queue | | | | | _ | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | _ | |
| >>>Associated HS- DSCH MAC-d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | - | |
| >>>Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >>>T1 | M | | 9.2.1.54A | | _ | |
| >>>Discard Timer | 0 | | 9.2.1.19C | | | |
| >>>MAC-hs Window Size | M | | 9.2.1.34C | | _ | |
| >>>MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | _ | |
| >>>MAC-d PDU Size Index | | 1 <maxno ofMACdP DUindexes ></maxno | | | _ | |
| >>>SID | M | | 9.2.1.52D | | _ | |
| >>>MAC-d PDU Size | M | | 9.2.1.34A | | _ | |
| >>Modify Priority Queue | | | | | _ | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | _ | |
| >>>Associated HS- DSCH MAC-d Flow | 0 | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | _ | |
| >>>Scheduling Priority Indicator | 0 | | 9.2.1.51A | | _ | |
| >>>T1 | 0 | | 9.2.1.54A | | _ | |
| >>>Discard Timer | 0 | | 9.2.1.19C | | | |
| >>>MAC-hs Window Size | 0 | | 9.2.1.34C | | _ | |
| >>>MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | _ | |
| >>>MAC-d PDU Size Index | | 0 <maxno ofMACdP DUindexes ></maxno | | | _ | |
| >>>SID | М | | 9.2.1.52D | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| >>>>MAC-d PDU Size | 0 | | 9.2.1.34A | | _ | |
| >>Delete Priority Queue | | | | | _ | |
| >>>Priority Queue ID | M | | 9.2.1.45A | | _ | |
| MAC-hs Reordering Buffer Size | 0 | | 9.2.1.34Ab | | _ | |
| CQI Feedback Cycle k | 0 | | 9.2.2.24a | For FDD only | - | |
| CQI Repetition Factor | 0 | | 9.2.2.24c | For FDD only | _ | |
| ACK-NACK Repetition Factor | 0 | | 9.2.2.a | For FDD only | _ | |
| CQI Power Offset | 0 | | 9.2.2.24b | For FDD only | - | |
| ACK Power Offset | 0 | | 9.2.2.b | For FDD only | _ | |
| NACK Power Offset | 0 | | 9.2.2.26a | For FDD only | - | |
| HS-SCCH Power Offset | 0 | | 9.2.2.19d | For FDD only | 1 | |
| HS-SCCH Code Change Grant | 0 | | 9.2.1.30S | | _ | |
| TDD ACK NACK Power Offset | 0 | | 9.2.3.71 | For TDD only | _ | |

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| Range bound | Explanation |
|-----------------------|--|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofPrioQueues | Maximum number of Priority Queues. |
| maxnoofMACdPDUindexes | Maximum number of MAC-d PDU Size Indexes |
| | (SIDs). |

HS-SCCH Code Change Indicator 9.2.1.30R

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------------------|----------|-------|-----------------------|-----------------------|
| HS-SCCH Code Change Indicator | | | ENUMERAT ED (HS- | |
| | | | SCCH Code | |
| | | | Change | |
| | | | needed) | |

HS-SCCH Code Change Grant 9.2.1.30S

The HS-SCCH Code Change Grant IE indicates that modification of HS-SCCH Codes is granted.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| HS-SCCH Code Change | | | ENUMERAT | |
| Grant | | | ED(Change | |
| | | | Granted) | |

9.2.1.31 **IMSI**

The IMSI is the permanent UE user Identity, see ref. [1].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-------------------------------|---|
| IMSI | | | OCTET STRING (SIZE(38)) | -Decimal digits coded in BCD -'1111' used as filler -bit 4 to 1 of octet n is encoding digit 2n-1 -bit 8 to 5 of octet n is encoding digit 2n |

9.2.1.31A Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Information Exchange ID | M | | INTEGER(0 | |
| | | | 2^20-1) | |

9.2.1.31B Information Exchange Object Type

Void.

9.2.1.31C Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|--------------------------|---|
| CHOICE Information Report Characteristics Type | M | | | |
| >OnDemand | | | NULL | |
| >Periodic | | | | |
| >>CHOICE Information Report Periodicity Scale | М | | | The frequency with which the Node B shall send information reports. |
| >>>minute | | | | |
| >>>Report Periodicity Value | М | | INTEGER (160,) | |
| >>>hour | | | | |
| >>>Report Periodicity Value | М | | INTEGER (124,) | |
| >On Modification | | | | |
| >>Information Threshold | 0 | | 9.2.1.31D | |

9.2.1.31D Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------|----------|-------|------------------------------|--|-------------|----------------------|
| CHOICE Information Type Item | М | | | | - | |
| >DGPS Corrections | | | | | - | |
| >>PRC Deviation | M | | ENUMERATED(1, 2, 5, 10,) | PRC deviation in meters from the previously reported value, which shall trigger a report | - | |

9.2.1.31E Information Type

The Information Type indicates which kind of information the RNS shall provide.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-----------------------|----------|--|---|--|
| Information Type Item | M | | Reference ENUMERAT ED (UTRAN Access Point Position with Altitude, UTRAN Access Point Position, IPDL Parameters, GPS Information, DGPS Corrections, GPS RX Pos, SFN- SFN Measureme nt Reference Point Position,, Cell Capacity Class) | For information exchange on the lur-g interface, only the Cell Capacity Class is used. |
| GPS Information | C-GPS | 1 <maxnoofgpstype s></maxnoofgpstype | , | |
| >GPS Information Item | | | ENUMERAT ED (GPS Navigation Model and Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real- Time Integrity,) | |

| Condition | Explanation |
|-----------|--|
| GPS | This IE shall be present if the <i>Information Type Item_</i> IE |
| | indicates "GPS Information". |

| Range Bound | Explanation |
|-----------------|--|
| maxnoofGPSTypes | Maximum number of GPS Information Types supported in one |
| | Information Exchange. |

9.2.1.31F IPDL Parameters

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------|----------|-------|-----------------------------|---------------------------------------|-------------|-------------------------|
| CHOICE IPDL Parameters | | | | | - | |
| >IPDL FDD Parameters | | | | | - | |
| >>IPDL FDD parameters | M | | 9.2.2.21B | | - | |
| >IPDL TDD Parameters | | | | Applicable to 3.84Mcps TDD only | - | |
| >>IPDL TDD parameters | M | | 9.2.3.4B | | - | |
| >Additional IPDL Parameters | | | | | = | |
| >>IPDL TDD Parameters LCR | | | | Applicable to 1.28Mcps TDD only | - | |
| >>IPDL TDD parameters LCR | M | | 9.2.3.4Bb | | YES | reject |

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9.2.1.32 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the DRNC, as defined in ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-------------------------------------|
| L3 Information | | | BIT STRING | The content is defined in ref. [16] |

9.2.1.33 Limited Power Increase

Void.

9.2.1.33A Load Value

The *Load Value* IE contains the total load on the measured object relative to the maximum planned load for both the uplink and downlink. It is defined as the load percentage of the Cell Capacity Class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|--|
| Uplink Load Value | M | | INTEGER(0100) | Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale. |
| Downlink Load Value | M | | INTEGER(0100) | Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale. |

9.2.1.34 MAC-c/sh SDU Length

Indicates the MAC-c/sh SDU Length. Which is used for FACH, DSCH and USCH. There may be multiple MAC-c/sh SDU Lengths per priority class.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|---|
| MAC-c/sh SDU Length | | | INTEGER(15000) | Size of the MAC-c/sh SDU in number of bits. |

9.2.1.34A MAC-d PDU Size

The MAC-d PDU Size IE provides the size in bits of the MAC-d PDU.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| MAC-d PDU Size | | | INTEGER | |
| | | | (15000,) | |

9.2.1.34Aa MAC-hs Guaranteed Bit Rate

The MAC-hs Guaranteed Bit Rate IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| MAC-hs Guaranteed Bit | | | INTEGER | Unit: bit/s |
| Rate | | | (02^24-1, | |
| | | |) | |

9.2.1.34Ab MAC-hs Reordering Buffer Size

The MAC-hs Reordering Buffer Size IE indicates the total buffer size defined in UE capability minus the RLC AM buffer in kBytes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------------|----------|-------|-----------------------|-----------------------|
| MAC-hs Reordering Buffer Size | | | INTEGER (1300,) | |

9.2.1.34B MAC-hs Reset Indicator

The MAC-hs Reset Indicator IE indicates that a reset of the MAC-hs is not required.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|--------------------------|-----------------------|
| MAC-hs Reset Indicator | | | ENUMERATED | |
| | | | (MAC-hs | |
| | | | Not Reset) | |

9.2.1.34C MAC-hs Window Size

The MAC-hs Window Sitze IE is used for MAC-hs PDU retransmission as defined in [41].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--------------------|----------|-------|-----------------------|-----------------------|
| MAC-hs Window Size | | | ENUMERAT | |
| | | | ED (4, 6, 8, | |
| | | | 12, 16, 24, | |
| | | | 32,) | |

9.2.1.35 Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Maximum Allowed UL Tx | | | INTEGER(- | dBm |
| Power | | | 50+33) | |

220

9.2.1.35A Measurement Availability Indicator

Void

9.2.1.35B Measurement Change Time

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| Measurement Change Time | <u>M</u> | | INTEGER | Unit: ms |
| | | | (16000,) | Range: 1060000 ms |
| | | | | Step: 10 ms |

9.2.1.36 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|----------------|-----------------------|
| | | | Reference | |
| Measurement Filter | | | ENUMERAT | |
| Coefficient | | | ED(0, 1, 2, | |
| | | | 3, 4, 5, 6, 7, | |
| | | | 8, 9, 11, 13, | |
| | | | 15, 17, | |
| | | | 19,) | |

9.2.1.36A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|--|
| Measurement Hysteresis Time | | | INTEGER (16000,) | Unit: ms Range: 1060000 ms Step: 10 ms |

9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| Measurement ID | | | INTEGER(0 2^20-1) | |

9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--------------------------|--|-------------|----------------------|
| CHOICE Measurement Increase/Decrease Threshold | M | | | · | - | |
| >SIR | | | | | - | |
| >>SIR | M | | INTEGER(062) | 0: 0 dB 1: 0.5 dB 2: 1 dB 62: 31dB | - | |
| >SIR Error | | | | FDD Only | _ | |
| >>SIR Error | М | | INTEGER(0124) | 0: 0 dB 1: 0.5 dB 2: 1 dB 124: 62 dB | - | |
| >Transmitted Code Power | | | | 124. 02 UB | - | |
| >>Transmitted Code Power | М | | INTEGER(0112 ,) | 0: 0 dB 1: 0.5 dB 2: 1 dB | - | |
| | | | | 112: 56 dB | | |
| >RSCP | | | | TDD Only | - | |
| >>RSCP | M | | INTEGER(0126) | 0: 0 dB 1: 0.5 dB 2: 1 dB | - | |
| . Dound Trin Time | | | | 126: 63 dB | | |
| >Round Trip Time >>Round Trip | M | | INTEGER(0327 | FDD Only 0: 0 chips | - | |
| Time | IVI | | 66) | 1: 0.0625 chips 2: 0.1250 chips 32766: 2047.875 chips | - | |
| >Additional Measurement Thresholds | | | | | - | |
| >>Load | | | INTEGED (0. 400 | 11.20 | - | |
| >>>Load | M | | INTEGER(0100) | Units are the same as for the Uplink Load Value IE and Downlink Load Value IE. | - | |
| >>Transmitted Carrier Power | | | | | - | |
| >>>Transmitted Carrier Power | М | | INTEGER(0100) | According to mapping in [23] and [24]. | YES | reject |
| >> Received Total Wide Band Power | | | | | - | |
| >>>Received Total Wide Band Power | М | | INTEGER(0620) | 0: 0dB 1: 0.1dB 2: 0.2dB | YES | reject |
| >>UL Timeslot | | | | 620: 62dB TDD Only | - | |
| ISCP | | | | | | _ |
| >>>UL Timeslot ISCP | | | INTEGER(0126) | 0: 0dB 1: 0.5dB 2: 1dB | YES | reject |
| | | | | 126: 63dB | | |
| >>RT Load | | | | | - | |

| >>>RT Load | M | INTEGER(0100) | Units are the same as for the Uplink RT Load Value IE and Downlink RT Load Value IE. | YES | reject |
|----------------------------|---|-------------------|--|-----|--------|
| >>NRT Load Information | | | | - | |
| >>>NRT Load Information | М | INTEGER(03) | | YES | reject |

9.2.1.39 Measurement Threshold

 $The \ Measurement \ Threshold \ defines \ which \ threshold \ that \ shall \ trigger \ Event \ A, \ B, \ E, \ F \ or \ On \ Modification.$

| CHOICE Measurement Threshold SIR SIR M | ty Assigned Criticality | Criticality | Semantics Description | IE Type and Reference | Range | Presence | IE/Group Name |
|--|--|-------------|---|--------------------------|-------|----------|---|
| Threshold SIR | | - | - | | | | |
| SIR | | | | | | | |
| SSIR | | _ | | | | | |
| In ref. [23] and [24], | | - | According to mapping | INTEGER(063) | | М | |
| NTEGER(0.125 According to mapping | | | in ref. [23] and [24]. | (| | | |
| > Transmitted Carrier Power | | - | | | | | |
| STRINGTON STRINGT ST | | - | | INTEGER(0125 | | М | |
| Deviation Section Deviation Deviat | | - | | | | | Carrier Power |
| Name | | - | in ref. [23] and [24]. | INTEGER(0127 | | М | Code Power |
| Name | | - | | NITEOED/0 407 | | | |
| Deviation | | - | in ref. [24] | INTEGER(0127) | | M | |
| Deviation 1 | | - | 3.84Mcps TDD Only | | | | Deviation |
| Second Trip Time | | - | | | | M | |
| NTEGER(0327 According to mapping - | | - | | ') | | | |
| Time | | - | | INTEGER(0327 | | M | |
| Measurement Threshold Information M 9.2.1.59C YES >>Tutranges Measurement Threshold Information M 9.2.1.59C YES Measurement Threshold Information - - >>SFN-SFN Measurement Threshold Information M 9.2.1.52B YES >>SFN-SFN Measurement Threshold Information N 9.2.1.52B YES >>Load INTEGER(0100 Only in the minimum indicated load, and 100 is the maximum indicated load, and 100 is the maximum indicated load. - >-Transmitted Carrier Power INTEGER(0100 According to mapping in [23] and [24]. - >-Received Total Wide Band Power INTEGER(0621 According to mapping in [23] and [24]. - >-Wide Band Power INTEGER(0621 According to mapping in [23] and [24]. - >-Wut Timeslot ISCP INTEGER(0127 According to mapping in [24] According to mapping in [24] - - > | | | in [23] | | | | Time |
| STUTRANGPS Measurement Threshold Information SFN-SFN Measurement Threshold Information SFN-SFN Measurement Threshold Information SSFN-SFN Measurement Threshold Information SLoad M INTEGER(0100 0 is the minimum indicated load, and 100 is the maximum indicated load. STRANGER | | - | | | | | Measurement Threshold |
| SFN-SFN Measurement Threshold Information Systate Sextended Information Systate Sextended Information Systate Sextended Sext | reject | YES | | 9.2.1.59C | | М | >>T _{UTRAN-GPS} Measurement |
| Measurement Threshold Information 9.2.1.52B YES >>SFN-SFN Measurement Threshold Information Measurement Threshold Information - >Load INTEGER(0100) 0 is the minimum indicated load, and 100 is the maximum indicated load. > Transmitted Carrier Power INTEGER(0100 According to mapping in [23] and [24]. > Received Total Wide Band Power INTEGER(0621 According to mapping in [23] and [24]. > Received Total Wide Band Power INTEGER(0621 According to mapping in [23] and [24]. > UL Timeslot ISCP INTEGER(0127 According to mapping in [24] > VLL Timeslot ISCP INTEGER(0127 According to mapping in [24] > RT Load INTEGER(0100 NITEGER(0100 NITEGER(01 | | | | | | | |
| >>SFN-SFN Measurement Threshold Information >Load >>Load >>Load INTEGER(0100 0 is the minimum indicated load, and 100 is the maximum indicated load. | | - | | | | | Measurement Threshold |
| >>Load M INTEGER(0100) 0 is the minimum indicated load, and 100 is the maximum indicated load. > Transmitted Carrier Power >>Transmitted M INTEGER(0100 According to mapping in [23] and [24]. > Received Total Wide Band Power >>Received Total Wide Band Power >>UL Timeslot ISCP >>UL Timeslot ISCP >>TDD Only | reject | YES | | 9.2.1.52B | | M | >>SFN-SFN Measurement Threshold |
| Description of the maximum indicated load, and 100 is the maximum indicated load. Description of the maximu | | - | | | | | |
| >Transmitted - Carrier Power INTEGER(0100 According to mapping in [23] and [24]. >Received Total - Wide Band Power INTEGER(0621 According to mapping in [23] and [24]. >Received M INTEGER(0621 According to mapping in [23] and [24]. Power - INTEGER(0127 According to mapping in [23] and [24]. >UL Timeslot TDD Only - ISCP INTEGER(0127 According to mapping in [24] >RT Load >RT Load INTEGER(0100 YES INTEGER(0100 YES | reject | YES | indicated load, and 100 is the maximum | INTEGER(0100) | | М | >>Load |
| >>Transmitted | | - | | | | | |
| >Received Total Wide Band Power INTEGER(0621) INTEGER(0621) In [23] and [24]. According to mapping in [23] and [24]. YES >VL Timeslot ISCP TDD Only - >VL Timeslot ISCP INTEGER(0127) INTEGER(0127) INTEGER(0100) According to mapping in [24] >RT Load INTEGER(0100) YES | reject | YES | | INTEGER(0100 | | M | >>Transmitted |
| >>Received Total Wide Band Power M INTEGER(0621 According to mapping in [23] and [24]. YES >UL Timeslot ISCP TDD Only - >>UL Timeslot ISCP INTEGER(0127 According to mapping in [24] YES >RT Load - >RT Load INTEGER(0100 NEGER) YES INTEGER(0100 NEGER) YES | | - | in [23] and [24]. |) | | | >Received Total |
| Total Wide Band Power) in [23] and [24]. >UL Timeslot ISCP TDD Only - >>UL Timeslot ISCP INTEGER(0127 According to mapping in [24] YES in [24] >RT Load INTEGER(0100 NEG) YES NEG | | 7/50 | A 12 4 | INITEDED (2. 22.) | | | |
| >UL Timeslot ISCP INTEGER(0127 According to mapping in [24] >>UL Timeslot ISCP M INTEGER(0127 in [24] According to mapping in [24] >RT Load - INTEGER(0100 in [24] - >RT Load INTEGER(0100 in [24] YES | reject | YES | | | | M | Total Wide Band |
| SCP | | - | TDD Only | | | | |
| SCP | | | , | | | | ISCP |
| >>RT Load M INTEGER(0100 YES) | reject | YES | | INTEGER(0127 | | М | ISCP |
| | ************************************** | - VE0 | | INTECEDIO 400 | | NA | |
| | reject | YES | |) | | IVI | |
| >NRT Load - - - | | - | | | | | >NRT Load Information |
| >>NRT Load M INTEGER(03) YES | reject | YES | | INTEGER(03) | | М | >>NRT Load |
| Information Applicable to | | | Applicable to | | | | |

| Deviation LCR | | | 1.28Mcps TDD Only | | |
|-----------------------------------|---|---------------|------------------------------|-----|--------|
| >>Rx Timing | M | INTEGER(0255 | According to mapping | YES | reject |
| Deviation LCR | |) | in [24] | | |
| >HS-SICH | | | Applicable to TDD | _ | |
| reception quality | | | Only | | |
| >>HS-SICH reception quality | М | INTEGER (020) | According to mapping in [23] | YES | reject |

9.2.1.39A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

| | IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|-----------------------|----------|--------------------------------------|-----------------------------|--|-------------|-------------------------|
| | Message structure | | 1 <maxnoo flevels></maxnoo | | The first repetition of the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occurred error of the message. | GLOBAL. | ignore |
| • | >IE ID | М | | INTEGER(065535) | The IE ID of this level's IE containing the not understood or missing IE. | - | |
| | >Repetition Number | 0 | | INTEGER(1256) | The Repetition Number IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them. | | |

| Range bound | Explanation |
|---------------|--|
| maxnooflevels | Maximum no. of message levels to report. The value for |
| | maxnooflevels is 256. |

9.2.1.40 Message Type

The Message Type uniquely identifies the message being sent.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|---|--|
| Procedure ID | | 1 | 1101010100 | |
| >Procedure Code | M | | INTEGER (0255) | "0" = Common Transport Channel Resources Initialisation "1" = Common Transport Channel Resources Release "2" = Compressed Mode Command "3" = Downlink Power Control "4" = Downlink Power Timeslot Control "5" = Downlink Signalling Transfer "6" = Error Indication "7" = Dedicated Measurement Failure "8" = Dedicated Measurement Initiation "9" = Dedicated Measurement Reporting |
| | | | | "10" = Dedicated Measurement Termination "11" = Paging "12" = Physical Channel Reconfiguration "14" = Radio Link Addition "15" = Radio Link Peletion "16" = Radio Link Preemption "18" = Radio Link Restoration "19" = Radio Link Restoration "19" = Radio Link Setup "20" = Relocation Commit "21" = Synchronised Radio Link Reconfiguration Cancellation "22" = Synchronised Radio Link Reconfiguration Commit "23" = Synchronised Radio Link Reconfiguration Preparation "24" = UnSynchronised Radio Link Reconfiguration Preparation "25" = Uplink Signalling Transfer "26" = Common Measurement Failure "27" = Common Measurement Initiation "28" = Common Measurement Reporting "29" = Common Measurement Termination "30" = Information Exchange Failure "31" = Information Reporting "33" = Information Exchange |
| | | | | Termination "34" = Radio Link Congestion "35" = Reset "36" = Radio Link Activation "38" = Radio Link Parameter Update |
| >Ddmode | М | | ENUMERATED(FDD, TDD, Common,) | Common = common to FDD and TDD. |
| Type of Message | М | | ENUMERATED(Initiati ng Message, Successful Outcome, Unsuccessful Outcome, Outcome) | |

9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Multiple URAs Indicator | | | ENUMERAT | |
| | | | ED(Multiple | |
| | | | URA s exist, | |
| | | | Single URA | |
| | | | Exists) | |

9.2.1.41A Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|--|-----------------------------|--------------------------|-------------|-------------------------|
| Neighbouring UMTS Cell Information | | 1 <maxnoof neighbourin gRNCs></maxnoof | | | EACH | ignore |
| >RNC-ID | M | | 9.2.1.50 | | _ | |
| >CN PS Domain Identifier | 0 | | 9.2.1.12 | | _ | |
| >CN CS Domain Identifier | 0 | | 9.2.1.11 | | _ | |
| >Neighbouring FDD Cell Information | 0 | | 9.2.1.41B | | _ | |
| >Neighbouring TDD Cell Information | 0 | | 9.2.1.41D | | _ | |
| >Neighbouring TDD Cell Information LCR | 0 | | 9.2.1.72 | | YES | ignore |

| Range bound | Explanation |
|-------------------------|--------------------------------------|
| maxnoofneighbouringRNCs | Maximum number of neighbouring RNCs. |

9.2.1.41B Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are a neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------|----------|---|-----------------------|--------------------------|-------------|----------------------|
| Neighbouring FDD Cell | | 1 <max< th=""><th>Reference</th><th>Description</th><th>_</th><th>Criticality</th></max<> | Reference | Description | _ | Criticality |
| Information | | noofFDD | | | | |
| | | neighbou | | | | |
| | | rs> | | | | |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >UL UARFCN | M | | UARFCN | Corresponds | _ | |
| | | | 9.2.1.66 | to Nu in ref. | | |
| | | | | [6] | | |
| >DL UARFCN | M | | UARFCN | Corresponds | _ | |
| | | | 9.2.1.66 | to Nd in ref. | | |
| | | | | [6] | | |
| >Frame Offset | 0 | | 9.2.1.30 | | - | |
| >Primary Scrambling Code | М | | 9.2.1.45 | | _ | |
| >Primary CPICH Power | 0 | | 9.2.1.44 | | _ | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | | _ | |
| >Tx Diversity Indicator | М | | 9.2.2.50 | | | |
| >STTD Support Indicator | 0 | | 9.2.2.45 | | - | |
| >Closed Loop Mode1 | 0 | | 9.2.2.2 | | _ | |
| Support Indicator | | | | | | |
| >Closed Loop Mode2 | 0 | | 9.2.2.3 | | _ | |
| Support Indicator | | | | | | |
| >Restriction State Indicator | 0 | | 9.2.1.48C | | YES | ignore |
| >DPC Mode Change Support | 0 | | 9.2.2.56 | | YES | ignore |
| Indicator | | | | | \/=0 | |
| >Coverage Indicator | 0 | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location | 0 | | 9.2.1.2C | | YES | ignore |
| Indicator | | | 0.04.00N | | VEO | |
| >HCS Prio | 0 | - | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container | 0 | | 9.2.2.D | | YES | ignore |
| FDD | | | 0.04.500- | | VEO | |
| >SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

| Range bound | Explanation |
|----------------------|---|
| maxnoofFDDneighbours | Maximum number of neighbouring FDD cell for one cell. |

9.2.1.41C Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for all GSM Cells that are a neighbouring cell to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|----------|--|--|--|-------------|-------------------------|
| Neighbouring GSM Cell Information | | 1 <max noofGS Mneighb ours></max | | | GLOBAL | ignore |
| >CGI | | 1 | | Cell Global Identity as defined in ref. [1]. | _ | |
| >>LAI | | 1 | | as defined in ref. [1]. | _ | |
| >>>PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). | _ | |
| >>>LAC | М | | OCTET STRING (2) | 0000 and FFFE not allowed | _ | |
| >>Cl | M | | OCTET STRING (2) | | - | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | The Cell Individual Offset to be used for UEs using DCHs. If the Extended GSM Cell Individual Offset IE is present, the Cell Individual Offset IE shall be set to a) -10dB if the Extended GSM Cell Individual Offset IE is < -10dB and b) 10dB if the Extended GSM Cell Individual Offset IE is > 10dB. | _ | |
| >BSIC | | 1 | | Base Station Identity Code as defined in ref. [1]. | - | |
| >>NCC | М | | BIT STRING(3) | Network Colour Code. | _ | |
| >>BCC | М | | BIT STRING(3) | Base Station Colour Code. | _ | |
| >Band Indicator | М | | ENUMERAT ED(DCS 1800 band, PCS 1900 band,) | Indicates whether or not the BCCH ARFCN belongs to the 1800 band or 1900 band of GSM frequencies. | _ | |
| >BCCH ARFCN | М | | INTEGER(01023) | BCCH Frequency as defined in ref. [29]. | _ | |
| >Coverage Indicator | 0 | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | 0 | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |

| > SNA Information | 0 | 9.2.1.52Ca | | YES | ignore |
|---|---|------------|---|-----|--------|
| >GERAN Cell Capability | 0 | 9.2.1.30Fa | | YES | ignore |
| >GERAN Classmark | 0 | 9.2.1.30Fb | | YES | ignore |
| >Extended GSM Cell Individual Offset | 0 | 9.2.1.26Bb | The Extended GSM Cell Individual Offset to be used for UEs using DCHs, for values that exceed the range of the Cell Individual Offset IE. | YES | ignore |

| Range bound | Explanation |
|----------------------|--|
| maxnoofGSMneighbours | Maximum number of neighbouring GSM cells for one cell. |

9.2.1.41D Neighbouring TDD Cell Information

The *Neighbouring TDD Cell Information* IE provides information for 3.84Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

| IE/Group Name | IE/Group Name Presence Range | | IE Type | Semantics | Criticality | Assigned |
|--------------------------------------|------------------------------|--|-----------------------|-------------------------------------|-------------|-------------|
| | | | and Reference | Description | | Criticality |
| Neighbouring TDD Cell Information | | 1 <maxnoo fTDDneighb ours></maxnoo | | | - | |
| >C-ID | M | | 9.2.1.6 | | _ | |
| >UARFCN | М | | 9.2.1.66 | Corresponds to Nt in ref. [7] | - | |
| >Frame Offset | 0 | | 9.2.1.30 | | _ | |
| >Cell Parameter ID | M | | 9.2.1.8 | | _ | |
| >Sync Case | M | | 9.2.1.54 | | _ | |
| >Time Slot For SCH | C-Case1 | | Time Slot 9.2.1.56 | | _ | |
| >SCH Time Slot | C-Case2 | | 9.2.1.51 | | _ | |
| >SCTD Indicator | М | | 9.2.1.78 | | _ | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | | _ | |
| >DPCH Constant Value | 0 | | 9.2.1.23 | | _ | |
| >PCCPCH Power | 0 | | 9.2.1.43 | | _ | |
| >Restriction State Indicator | 0 | | 9.2.1.48C | | YES | ignore |
| >Coverage Indicator | 0 | | 9.2.1.12G | | YES | ignore |
| >Antenna Co-location Indicator | 0 | | 9.2.1.2C | | YES | ignore |
| >HCS Prio | 0 | | 9.2.1.30N | | YES | ignore |
| >Cell Capability Container TDD | 0 | | 9.2.3.1a | | YES | ignore |
| > SNA Information | 0 | | 9.2.1.52Ca | | YES | ignore |

| Condition | Explanation |
|-----------|--|
| Case1 | The IE shall be present if the Sync Case IE is set to "Case1". |
| Case2 | The IE shall be present if the Sync Case IE is set to "Case2". |

| Range bound | Explanation | | |
|----------------------|--|--|--|
| maxnoofTDDneighbours | Maximum number of neighbouring 3.84Mcps TDD cell for one cell. | | |

9.2.1.41Dd Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|------------------------|
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time Slot LCR | 0 | | 9.2.3.12a | |
| Midamble shift LCR | 0 | | 9.2.3.4C | |

9.2.1.41E Paging Cause

Cause for a CN originated page.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------|----------|-------|--|-----------------------|
| Paging Cause | Presence | Range | IE Type and Reference ENUMERAT ED(Terminating Conversatio nal Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, Terminating Low Priority Signalling,, Terminating High Priority Signalling, Terminating — cause unknown | See in [16] |
| | | | unknown \ | |

9.2.1.41F Paging Record Type

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| Paging Record Type | | | ENUMERAT | See ref. [16] |
| | | | ED(IMSI | |
| | | | (GSM-MAP), | |
| | | | TMSI(GSM- | |
| | | | MAP), P- | |
| | | | TMSI(GSM- | |
| | | | MAP), IMSI | |
| | | | (DS-41), | |
| | | | TMSI (DS- | |
| | | | 41),) | |

9.2.1.41Fa Partial Reporting Indicator

This IE indicates if DRNS may report partially successful measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------------------|----------|-------|-------------------------------------|-----------------------|
| Partial Reporting Indicator | | | ENUMERAT ED(partial reporting | |

| | allowed) | |
|--|----------|--|
| | | |

9.2.1.41G Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of Measurements.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------|----------|-------|----------------|-----------------------|
| | | | Reference | |
| UTRAN Cell Identifier | М | | 9.2.1.71 | |
| UARFCN | М | | 9.2.1.66 | Corresponds to Nd [6] |
| Primary Scrambling Code | М | | 9.2.1.45 | |

9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------------------|----------|-------|-------------|------------------------|
| | | | Reference | |
| UTRAN Cell Identifier | M | | 9.2.1.71 | |
| UARFCN | M | | 9.2.1.66 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.1.8 | |
| Time slot | 0 | | 9.2.1.56 | |
| Midamble Shift And Burst Type | 0 | | 9.2.3.4 | |

9.2.1.41I NRT Load Information Value

The NRT Load Information IE indicates the load situation on the cell for the Non Real-Time traffic. Non Real Time traffic corresponds to the Interactive and Background traffic classes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|-----------------------|--|
| Uplink NRT Load Information Value | M | | INTEGER(03) | Mapping of the status: 0: low: The Uplink NRT load is low. 1: medium: The Uplink NRT load is medium. 2: high: Uplink NRT load is high. Probability to admit a new user is low. 3: overloaded: Uplink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow. |
| Downlink NRT Load Information Value | M | | INTEGER(03) | Mapping of the status: 0: low: The Downlink NRT load is low. 1: medium: The Downlink NRT load is medium. 2: high: Downlink NRT load is high. Probability to admitt a new user is low. 3: overloaded: Downlink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow. |

9.2.1.42 Payload CRC Present Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Payload CRC Presence | | | ENUMERAT | |
| Indicator | | | ED(CRC | |
| | | | Included, | |
| | | | CRC not | |
| | | | included) | |

9.2.1.43 PCCPCH Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the PCCPCH Power is the linear sum of the power that is used for transmitting the PCCPCH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| PCCPCH Power | | | NTEGER (- 150400,) | Unit dBm_Range −15.0 to 40.0 dBm, Step size 0.1 dB15.0 shall indicate P≤ -15dBm +40.0 shall indicate P≥ 40dBm. |

9.2.1.44 Primary CPICH Power

Primary CPICH power is the power that is used for transmitting the Primary CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH Power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|--|
| Primary CPICH Power | | | INTEGER (- 100500) | Value = Primary CPICH Power/10 Unit dBm Range -10.0+50.0 Step 0.1 dB |

9.2.1.45 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Primary Scrambling Code | | | INTEGER(0 511) | |

9.2.1.45A Priority Queue ID

The Priority Queue ID IE provides the identity of the Priority Queue.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| Priority Queue ID | | | INTEGER (07) | |

9.2.1.45B Process Memory Size

The Process Memory Size IE is the size of an HARQ process in the DRNS expressed in bits.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-------------------------|-----------------------|
| Process Memory Size | | | ENUMERATED (| |
| - | | | 800, 1600, 2400, 3200, | |
| | | | 4000, 4800, 5600, 6400, | |
| | | | 7200, 8000, 8800, 9600, | |
| | | | 10400, 11200, 12000, | |
| | | | 12800, 13600, 14400, | |
| | | | 15200, 16000, 17600, | |
| | | | 19200, 20800, 22400, | |
| | | | 24000, 25600, 27200, | |
| | | | 28800, 30400, 32000, | |
| | | | 36000, 40000, 44000, | |
| | | | 48000, 52000, 56000, | |
| | | | 60000, 64000, 68000, | |
| | | | 72000, 76000, 80000, | |
| | | | 88000, 96000, 104000, | |
| | | | 112000, 120000, 128000, | |
| | | | 136000, 144000, 152000, | |
| | | | 160000, 176000, 192000, | |
| | | | 208000, 224000, 240000, | |
| | | | 256000, 272000, 288000, | |
| | | | 304000,) | |

9.2.1.46 Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|---|
| Puncture Limit | | | INTEGER (015) | 0: 40% 1: 44 % |
| | | | | 14: 96% 15: 100% (no puncturing) |

9.2.1.46A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| QE-Selector | | | ENUMERAT | |
| | | | ED(selected, | |
| | | | non- | |
| | | | selected) | |

9.2.1.47 RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [2].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|--------------------------|----------------------------|
| RANAP Relocation | | | BIT STRING | The contents is defined in |
| Information | | | | ref. [2]. |

9.2.1.48 Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|--|--|-------------|-------------------------|
| CHOICE Report | M | | | | _ | |
| Characteristics | _ | | | | | |
| >OnDemand | | | NULL | | _ | |
| >Periodic | | | | | _ | |
| >>Report Periodicity | M | | 9.2.1.48a | The periodicity with which the DRNS shall send measuremen t reports. | - | |
| >Event A | | | | | _ | |
| >>Measurement Threshold | M | | 9.2.1.39 | The threshold for which the DRNS shall trigger a measuremen t report. | _ | |
| >>Measurement | 0 | | 9.2.1.36A | | _ | |
| Hysteresis Time | | 1 | | | | |
| >Event B | | | | | _ | |
| >>Measurement Threshold | M | | 9.2.1.39 | The threshold for which the DRNS shall trigger a measuremen t report. | _ | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | | _ | |
| >Event C | | | | | _ | |
| >>Measurement Increase/Decrease Threshold | M | | 9.2.1.38 | | _ | |
| >>Measurement Change Time | M | | 9.2.1.35B | The time within which the measuremen t entity shall rise, in order to trigger a measuremen t report. | _ | |
| >Event D | | | | , | _ | |
| >>Measurement Increase/Decrease Threshold | М | | 9.2.1.38 | | - | |
| >>Measurement Change Time | M | | 9.2.1.35B | The time within which the measuremen t entity shall fall, in order to trigger a measuremen t report. | _ | |
| >Event E | | | | · | _ | |
| >>Measurement Threshold 1 | М | | Measureme nt Threshold 9.2.1.39 | | - | |
| >>Measurement Threshold 2 | 0 | | Measureme nt Threshold | | _ | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-------|--|--|-------------|-------------------------|
| | | | 9.2.1.39 | | | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | The hysteresis time in ms | _ | |
| >>Report Periodicity | 0 | | 9.2.1.48a | The periodicity with which the DRNS shall send measuremen t reports. | - | |
| >Event F | | | | | _ | |
| >>Measurement Threshold 1 | M | | Measureme nt Threshold 9.2.1.39 | | - | |
| >>Measurement Threshold 2 | 0 | | Measureme nt Threshold 9.2.1.39 | | _ | |
| >>Measurement Hysteresis Time | 0 | | 9.2.1.36A | The hysteresis time in ms | - | |
| >>Report Periodicity | 0 | | 9.2.1.48a | The periodicity with which the DRNS shall send measuremen t reports. | _ | |
| >Additional Report Characteristics | | | | | - | |
| >>On Modification | | | | | _ | |
| >>> On <u>Modification</u> On <u>Modification</u> | | 1 | | | YES | reject |
| >>>Measure ment Threshold | M | | 9.2.1.39 | | | |

9.2.1.48a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|--------------------------|--|
| CHOICE Report Periodicity Scale | M | | | |
| >millisecond | | | | |
| >>Report Periodicity Value | M | | INTEGER (16000,) | Unit: ms Range: 1060000 ms Step: 10 ms |
| >minute | | | | |
| >>Report Periodicity Value | M | | INTEGER (160,) | Unit: min Range: 160 min Step: 1 min |

9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerned the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------------------|
| UTRAN Access Point Position with Altitude | 0 | | 9.2.1.75 | | - | |
| IPDL Parameters | 0 | | 9.2.1.31F | | - | |
| DGPS Corrections | 0 | | 9.2.1.19B | | - | |
| GPS Navigation Model and Time Recovery | 0 | | 9.2.1.301 | | - | |
| GPS Ionospheric Model | 0 | | 9.2.1.30H | | - | |
| GPS UTC Model | 0 | | 9.2.1.30L | | - | |
| GPS Almanac | 0 | | 9.2.1.30G | | - | |
| GPS Real-Time Integrity | 0 | | 9.2.1.30J | | - | |
| GPS RX Pos | 0 | | 9.2.1.30K | | - | |
| SFN-SFN Measurement Reference Point Position | 0 | _ | 9.2.1.74 | | - | |
| Cell Capacity Class Value | 0 | | 9.2.1.5C | | YES | reject ignor <u>e</u> |

9.2.1.48B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|-------|-----------------------------|--------------------------|-------------|-------------------------|
| CHOICE Information Availability Indicator | M | | | | _ | |
| >Information Available | | | | | _ | |
| >>Requested Data Value | М | | 9.2.1.48A | | ı | |
| >Information not Available | | | NULL | | - | |

9.2.1.48C Restriction State Indicator

The Restriction state indicator is the identifier indicates whether the cell is "Cell Reserved for Operator Use" or not. It is provided by DRNS and reported to SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|-----------------------|
| Restriction state indicator | | | ENUMERAT ED(Cell Not | |
| | | | Reserved for | |
| | | | Operator Use, Cell | |
| | | | Reserved for | |
| | | | Operator | |
| | | | Use,) | |

9.2.1.49 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RL ID | | | INTEGER | |
| | | | (031) | |

9.2.1.49A RL Specific DCH Information

The *RL Specific DCH Information* IE provides RL Specific DCH Information for DCHs. In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------|----------|-----------------------------------|-----------------------------|---|-------------|-------------------------|
| RL Specific DCH Information | | 1 <maxno ofDCHs></maxno | | | 1 | |
| >DCH ID | M | | 9.2.1.16 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | _ | |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.1.50 RNC-ID

This is the identifier of one RNC in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RNC-ID | | | INTEGER(0. | |
| | | | .4095) | |

9.2.1.50A SAT ID

The SAT ID indicates the identity of the satellite.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SAT ID | | | INTEGER(063) | |

9.2.1.50B RT Load Value

The *RT Load Value* IE indicates the ratio of the load generated by Real Time traffic, relative to the measured Load Value. Real Time traffic corresponds to the Conversational and Streaming traffic classes.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|--|
| Uplink RT Load Value | М | | INTEGER(0100) | Value 0 shall indicate the minimum RT load, and 100 shall indicate the maximum RT load. Load should be measured on a linear scale. |
| Downlink RT Load Value | М | | INTEGER(0100) | Value 0 shall indicate the minimum RT load, and 100 shall indicate the maximum RT load. Load should be measured on a linear scale. |

9.2.1.51 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that is assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SCH Time Slot | | | INTEGER(0. | |
| | | | .6) | |

9.2.1.51A Scheduling Priority Indicator

Indicates the relative priority of the FACH, DSCH, USCH or HS-DSCH data frame. Used by the DRNC when scheduling FACH, DSCH, USCH or HS-DSCH traffic.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|--------------------------|---|
| Scheduling Priority Indicator | | | INTEGER(015) | Relative priority of the FACH, DSCH, USCH or HS-DSCH data frame: 0=Lowest Priority |
| | | | | 15=Highest Priority |

9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|---|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| LAC | M | | OCTET STRING (2) | 0000 and FFFE not allowed |
| SAC | М | | OCTET STRING (2) | |

9.2.1.52A SFN

System Frame Number of the cell, see ref. [17].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SFN | | | <i>INTEGE</i> INT | |
| | | | EGER(040 | |
| | | | 95) | |

9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|-----------------------|---|
| SFN-SFN Change Limit | 0 | | INTEGER(1256) | Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip. |
| Predicted SFN-SFN Deviation Limit | 0 | | INTEGER(1. .256) | Deviation the Predicted SFN- SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip. |

9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|---|----------------------------|---|
| Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information | | 1 <maxnoofmeasn Cell></maxnoofmeasn | | |
| >UTRAN Cell Identifier | M | | 9.2.1.71 .71 | |
| >SFN-SFN Value | М | | 9.2.1.77 | |
| >SFN-SFN Quality | 0 | | INTEGER(0255) | Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and μ = $E[x]$ is the expectation value of x. |
| >SFN-SFN Drift Rate | M | | INTEGER(- 100100) | Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
| >SFN-SFN Drift Rate Quality | 0 | | INTEGER(0100) | Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and μ = $E[x]$ is the expectation value of x. |
| >SFN-SFN Measurement Time Stamp | М | | 9.2.1.76 | |
| Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information | | 0 <maxnoofmeasn Cell-1></maxnoofmeasn | | |
| >UTRAN Cell Identifier | М | | 9.2.1.71 | |

| Range bound | Explanation |
|------------------|---|
| maxnoofMeasNCell | Maximum number of neighbouring cells on which |
| | measurements can be performed. |

9.2.1.52Ca Shared Network Area (SNA) Information

This information element contains a list of Shared Network Areas, identified by the Shared Network Area Code (SNAC, see [1]) which a certain cell belongs to. For a broader description of the SNA access control see [40].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|---|-----------------------|--|
| PLMN Identity | M | | OCTET STRING (3) | - digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC). |
| List of SNAs | | 0 <maxnoofsnas< td=""><td></td><td></td></maxnoofsnas<> | | |
| > SNAC | М | | INTEGER (0 65535) | |

| Range bound | Explanation |
|-------------|---|
| maxnoofSNAs | Maximum number of SNAs one cell can be part of. |

9.2.1.52D SID

The SID IE provides the identity of the Size Index.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SID | | | INTEGER (07) | |

9.2.1.53 S-RNTI

The S-RNTI identifies the UE in the SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| S-RNTI | | | INTEGER(0. | |
| | | | .2^20 -1) | |

9.2.1.53a S-RNTI Group

The S-RNTI Group identifies a group of UEs in the SRNC.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| S-RNTI | M | | 9.2.1.53 | |
| S-RNTI bit mask index | M | | Enumerated(| |
| | | | b1, | |
| | | | b2,b19 <u>,</u>) | |

The S-RNTI group is identified by all S-RNTI values whose bits starting from the most significant bit down to, and including, the bit indicated by S-RNTI bit mask index, are equal to the corresponding bits of the S-RNTI in this IE.

The bits of the S-RNTI in this IE that are less significant than the bit position indicated by the S-RNTI bit mask index shall be ignored.

9.2.1.54 Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case as follows:

- Case 1) SCH and PCCPCH allocated in a single TS#k
- Case 2) SCH allocated in two TS: TS#k and TS#k+8 PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from DRNC to SRNC used for 1.28Mcps TDD, the DRNC shall indicate Sync Case 1 and the SRNC shall ignore it.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Sync Case | | | INTEGER | |
| _ | | | (12,) | |

9.2.1.54A T1

The T1 IE is used as described in ref [41] subclause 11.6.2.3.

| IE/Group Name | Presence | Range | IE type and | Semantics description |
|---------------|----------|-------|---------------|------------------------------|
| | | | reference | |
| T1 | | | ENUMERAT | Unit: ms |
| | | | ED (10, 20, | Node B may use this value to |
| | | | 30, 40, 50, | stop the re-transmission of |
| | | | 60, 70, 80, | the corresponding MAC-hs |
| | | | 90, 100, 120, | PDU. |
| | | | 140, 160, | |
| | | | 200, 300, | |
| | | | 400,) | |

9.2.1.55 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [12].]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| TFCI Presence | | | ENUMERATE | |
| | | | D(Present, | |
| | | | not present) | |

9.2.1.56 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Time Slot | | | INTEGER | |
| | | | (014) | |

9.2.1.57 ToAWE

ToAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. ToAWE is defined with a positive value relative Latest Time of Arrival (LToA). A data frame arriving after ToAWE gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| ToAWE | | | INTEGER (02559) | Unit: msec. |

9.2.1.58 ToAWS

ToAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. ToAWS is defined with a positive value relative Time of Arrival Window Endpoint (ToAWE). A data frame arriving before ToAWS gives a Timing Adjustment Control frame response.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| ToAWS | | | INTEGER | Unit: msec. |
| | | | (01279) | |

9.2.1.58A Traffic Class

This IE indicates the type of application the Radio Bearer is optimised for.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--|-----------------------|
| Traffic Class | | | ENUMERATED (conversational, streaming, interactive, background,) | |

9.2.1.59 Transaction ID

The Transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same Transaction ID.

The Transaction ID is determined by the initiating peer of a procedure.

For procedures addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures for the same UE using the same procedure code, and initiated by the same protocol peer.

For procedures not addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures using the same procedure code, and initiated by the same protocol peer.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|-----------------------|--|
| CHOICE Transaction ID Length | | | | The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long"). |
| >Short | | | | |
| >>Transaction ID | M | | INTEGER | |
| Value | | | (0127) | |
| >Long | | • | | |
| >>Transaction ID Value | M | | INTEGER (032767) | |

9.2.1.59A Transmitted Carrier Power

The Transmitted Carrier Power IE contains the Transmitted Carrier Power in a cell, as defined in [11] & [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|--|
| Transmitted Carrier Power | | | INTEGER(0100) | According to mapping in [23] and [24]. |

9.2.1.59B T_{UTRAN-GPS} Accuracy Class

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------------------------------|----------|-------|-------------|-------------------------------|
| | | | Reference | |
| T _{UTRAN-GPS} Accuracy Class | | | ENUMERAT | More information about |
| | | | ED(Accuracy | Measurement Accuracy Class is |
| | | | Class A, | included in [23]. |
| | | | Accuracy | |
| | | | Class B, | |
| | | | Accuracy | |
| | | | Class C,) | |

9.2.1.59C T_{UTRAN-GPS} Measurement Threshold Information

The T_{UTRAN-GPS} Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|-----------------------|---|
| T _{UTRAN-GPS} Change Limit | 0 | | INTEGER(1256) | Change of T _{UTRAN-GPS} value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip. |
| Predicted T _{UTRAN-GPS} Deviation Limit | 0 | | INTEGER(1256) | Deviation of the Predicted T _{UTRANGPS} from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip. |

9.2.1.59D T_{UTRAN-GPS} Measurement Value Information

The T_{UTRAN-GPS} *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|------------------------------|---|
| T _{UTRAN-GPS} | | 1 | | Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999. |
| >MS | М | | INTEGER (016383) | Most Significant Part |
| >LS | M | | INTEGER (04294967 295) | Least Significant Part |
| T _{UTRAN-GPS} Quality | 0 | | INTEGER(0255) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x. |
| T _{UTRAN-GPS} Drift Rate | M | | INTEGER(- 5050) | Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock. |
| T _{UTRAN-GPS} Drift Rate Quality | 0 | | INTEGER(0. .50) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and μ = $E[x]$ is the expectation value of x. |

9.2.1.60 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-----------------------|
| Transport Bearer ID | | | INTEGER(04095) | |

9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Transport Bearer Request | | | ENUMERAT | |
| Indicator | | | ED(Bearer | |
| | | | Requested, | |
| | | | Bearer not | |
| | | | Requested, | |
| | | |) | |

9.2.1.62 Transport Layer Address

In case of transport bearer establishment with ALCAP [3] [35], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [3] [35].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see [3].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Transport Layer Address | | | BIT | |
| . , | | | STRING(11 | |
| | | | 60,) | |

9.2.1.63 Transport Format Combination Set (TFCS)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable to DL Transport Channels.

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC(field2)). The CTFC(field2) value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC(field2) value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC(field2) is spelt out explicitly for each value of TFCI (field2).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------------|---|------------------------------------|---|
| CHOICE DSCH | M | | Reference | |
| >No Split in the TFCI | | | | This choice is made if: a) The TFCS refers to the uplink OR b) The mode is FDD and none of the Radio Links of the concerned UE are assigned any DSCH transport channels OR c) The mode is TDD |
| >>TFCS | | 1 <maxnooftfcs ></maxnooftfcs | | The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.] |
| >>>CTFC | М | | INTEGER(0 MaxCTFC) 9.2.1.14A | Integer number calculated according to ref. [16]. |
| >>>CHOICE Gain Factors >>>>Signalled Gain | C- PhysChan | | | |
| Factors Signalled Gain Factors | | | | |
| >>>>Gain Factor β _C | M | | INTEGER(0 15) | [FDD - For UL DPCCH or control part of PRACH ref. [21].] [TDD - β for UL DPCH mapping in accordance to [13].] |
| >>>>Gain Factor β _D | М | | INTEGER(0 15) | [FDD - For UL DPDCH or data part of PRACH ref. [21].] [TDD - Should be set to 0 by the sender, and shall be ignored by the receiver.] |
| >>>>Reference TFC nr | 0 | | INTEGER(0 15) | If this TFC is a reference TFC, this IE indicates the reference number |
| >>>Computed Gain FactorsComputed Gain Factors | | | | |
| >>>>Reference TFC nr | M | | INTEGER(0 15) | Indicates the reference TFC to be used to calculate the gain factors for this TFC |
| >There is a split in the TFCI | | | | This choice is made if: a) The TFCS refers to the downlink AND b) The mode is FDD and one of the Radio Links of the concerned UE is assigned one or more DSCH transport channels |
| >>Transport Format Combination_DCH | | 1 <maxtfci_1_c ombs></maxtfci_1_c | | The first instance of the Transport #Format ©Combination_DCH IE corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on. |
| >>>CTFC(field1) | М | | INTEGER(0 MaxCTFC) 9.2.1.14A | Integer number calculated according to [16] . The calculation of CTFC ignores |

| | | | | any DSCH transport channels which may be assigned |
|--|---|---|---|--|
| >>Choice Signalling Method | M | | | |
| >>>TFCI Range | | | | |
| >>>>TFC Mapping on DSCH | | 1 <maxnotfclgr oups></maxnotfclgr | | |
| >>>>Max TFCI(field2) Value | М | | INTEGER(1 <maxtfci _2_Combs - 1>)</maxtfci | This is the Maximum value in the range of TFCI(field2) values for which the specified CTFC(field2) applies |
| >>>>CTFC(field 2) | M | | INTEGER(0 MaxCTFC) 9.2.1.14A | Integer number calculated according to [16] The calculation of CTFC ignores any DCH transport channels which may be assigned |
| >>>Explicit | | | | |
| >>>>Transport Format Combination_DSC H | | 1 <maxtfci_2_c ombs></maxtfci_2_c | | The first instance of the Transport #Format eCombination_DSCH IE corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on. |
| >>>>CTFC(field 2) | M | | INTEGER(0 MaxCTFC) 9.2.1.14A | Integer number calculated according to [16] . The calculation of CTFC ignores any DCH transport channels which may be assigned |

| Condition | Explanation |
|-----------|--|
| PhysChan | The choice shall be present if the TFCS concerns a UL DPCH |
| | [FDD – or PRACH channel]. |

| Range bound | Explanation |
|-----------------|--|
| maxnoofTFCs | The maximum number of Transport Format Combinations. |
| maxTFCI_1_Combs | Maximum number of TFCI (field 1) combinations (given by 2 |
| | raised to the power of the length of the TFCI (field 1)). |
| maxTFCI_2_Combs | Maximum number of TFCI (field 2) combinations (given by 2 |
| | raised to the power of the length of the TFCI (field 2)). |
| maxNoTFCIGroups | Maximum number of groups, each group described in terms of a |
| | range of TFCI(field 2) values for which a single value of |
| | CTFC(field2) applies. |
| MaxCTFC | Maximum number of the CTFC value is calculated according to |
| | the following: |
| | $\sum_{i}^{I} (L_i - 1) P_i$ |
| | i=1 with the notation according to ref. [16] |
| | with the notation according to ref. [16]. |

9.2.1.64 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the 2^{nd} Interleaving Mode IE.]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|------------------|-------------------------------|---|---|
| Dynamic Transport Format Information | | 1 <maxtfcount></maxtfcount> | | The first instance of the parameter corresponds to TFI zero, the second to 1 and so on. |
| >Number of Transport Blocks | M | | INTEGER (0512) | |
| >Transport Block Size | C – Blocks | | INTEGER (05000) | Unit: Bits |
| >CHOICE Mode >>TDD | М | | | |
| >>>Transmission Time Interval Information | C- TTIdynamic | 1 <maxttlcount></maxttlcount> | | |
| >>>Transmission Time Interval | М | | ENUMERAT ED(10, 20, 40, 80,) | Unit: msec |
| Semi-static Transport Format Information | | 1 | | |
| >Transmission Time Interval | М | | ENUMERAT ED (10, 20, 40, 80, dynamic,) | Unit: msec Value "dynamic" for TDD only |
| >Type of Channel Coding | M | | ENUMERAT ED (No codingTDD, Convolutiona I, Turbo,) | [FDD - The value "No codingTDD" shall be treated as logical error if received] |
| >Coding Rate | C – Coding | | ENUMERAT ED (1/2, 1/3,) | |
| >Rate Matching Attribute | М | | INTEGER (1maxRM) | |
| >CRC size | M | | ENUMERAT ED (0, 8, 12, 16, 24,) | |
| >CHOICE Mode >>TDD | М | | | |
| >>>2 nd Interleaving Mode | М | | ENUMERAT ED(Frame related, Timeslot related,) | |

| Condition | Explanation |
|------------|---|
| Blocks | The IE shall be present if the Number of Transport Blocks IE is set |
| | to a value greater than 0. |
| Coding | The IE shall be present if Type of Channel Coding IE is set to |
| | "Convolutional" or "Turbo". |
| TTIdynamic | The IE shall be present if the Transmission Time Interval IE in the |
| • | Semi-static Transport Format Information IE is set to "dynamic". |

| Range bound | Explanation |
|-------------|--|
| maxTFcount | The maximum number of different transport formats that can be |
| | included in the Transport format set for one transport channel. |
| maxRM | The maximum number that could be set as rate matching attribute |
| | for a transport channel. |
| maxTTlcount | The amount of different TTI that are possible for that transport |
| | format is. |

9.2.1.65 TrCH Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------|----------|-------|-------------|--------------------------------|
| | | | Reference | |
| TrCH Source Statistics | | | ENUMERAT | 'Speech' = Statistics of the |
| Descriptor | | | ED(Speech, | data corresponds to speech. |
| | | | RRC, | 'RRC' = Statistics of the data |
| | | | Unknown, | corresponds to RRC |
| | | |) | signalling |
| | | | | 'Unknown' = The statistics of |
| | | | | the data is unknown |

9.2.1.66 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------------------|
| UARFCN | | | INTEGER(016383,) | Corresponds to: 0.0Hz 3276.6MHz |
| | | | | see ref. [6] and ref. [7]. |

9.2.1.67 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| UL FP Mode | | | ENUMERAT | |
| | | | ED(Normal, | |
| | | | Silent,) | ļ. |

9.2.1.68 UL Interference Level

Void

9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|---|
| Uncertainty semi-major | M | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1) |
| Uncertainty semi-minor | M | | INTEGER(0127) | The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$ |
| Orientation of major axis | M | | INTEGER(0179) | The relation between the IE value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1). The values 90179 shall not be used. |

9.2.1.68B Unidirectional DCH Indicator

The Unidirectional DCH Indicator IE indicates that the DCH is unidirectional.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|--------------------------|------------------------------|
| Unidirectional DCH Indicator | | | ENUMERATED | Downlink DCH only shall only |
| | | | (Downlink DCH only, | be used by TDD. |
| | | | Uplink DCH only) | |

9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|--|
| Uplink SIR | | | INTEGER (- 82173) | Value = Uplink SIR/10 Unit dB Range -8.2+17.3 Step 0.1 dB |

9.2.1.70 URA ID

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| URA ID | | | INTEGER(0. | |
| | | | .65 535) | |

9.2.1.70A UTRAN Access Point Position

The UTRAN Access Point Position indicates the exact geographical position of the base station antenna.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--|--|
| Latitude Sign | M | | ENUMERAT ED(North, South) | |
| Degrees of Latitude | M | | INTEGER(02 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0°90°) |
| Degrees of Longitude | М | | INTEGER(-2 ²³ 2 ²³ -1) | The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°) |

9.2.1.70B URA Information

The URA Information IE contains URA Information for one cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|---|-----------------------|--------------------------------|
| URA ID | M | | 9.2.1.70 | |
| Multiple URAs Indicator | M | | 9.2.1.41 | |
| RNCs with Cells in the | | 0 | | Other RNCs having at least |
| Accessed URA | | <maxrncinura-< td=""><td></td><td>one cell in the URA identified</td></maxrncinura-<> | | one cell in the URA identified |
| | | 1> | | by the URA ID IE. |
| >RNC-ID | M | | 9.2.1.50 | |

| Range Bound | Explanation |
|-------------|-----------------------------------|
| maxRNCinURA | Maximum number of RNC in one URA. |

9.2.1.71 UTRAN Cell Identifier (UC-ID)

The UC-ID (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RNC-ID | М | | 9.2.1.50 | |
| C-ID | М | | 9.2.1.6 | |

9.2.1.72 Neighbouring TDD Cell Information LCR

The *Neighbouring TDD Cell Information LCR* IE provides information for 1.28Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|--|----------|---|------------|-------------------------------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| Neighbouring TDD Cell Information LCR | | 1 <maxno ofLCRTDD neighbour s></maxno | | | _ | |
| >C-ID | М | | 9.2.1.6 | | _ | |
| >UARFCN | M | | 9.2.1.66 | Corresponds to Nt in ref. [7] | - | |
| >Frame Offset | 0 | | 9.2.1.30 | | _ | |
| >Cell Parameter ID | М | | 9.2.1.8 | | _ | |
| >SCTD Indicator | М | | 9.2.1.78 | | _ | |
| >Cell Individual Offset | 0 | | 9.2.1.7 | | _ | |
| >DPCH Constant Value | 0 | | 9.2.1.23 | | _ | |
| >PCCPCH Power | 0 | | 9.2.1.43 | | _ | |
| >Restriction State Indicator | 0 | | 9.2.1.48C | | _ | |
| >Cell Capability Container TDD LCR | 0 | | 9.2.3.1b | | YES | ignore |
| > SNA Information | 0 | | 9.2.1.52Ca | - | YES | ignore |

| Range bound | Explanation |
|-------------------------|--|
| maxnoofLCRTDDneighbours | Maximum number of neighbouring 1.28Mcps TDD cell for one cell. |

9.2.1.73 Permanent NAS UE Identity

This element is used to identify the UE in UTRAN.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------------|----------|-------|--------------------------|-----------------------|
| Choice Permanent NAS UE Identity | | | | |
| >IMSI | | | | |
| >>IMSI | M | | 9.2.1.31 | |

9.2.1.74 SFN-SFN Measurement Reference Point Position

The SFN-SFN Measurement Reference Point Position indicates the exact geographical position of the SFN-SFN measurement reference point. The altitude shall be included when available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| Geographical Coordinates | М | | 9.2.1.30F | |
| Altitude and direction | 0 | | 9.2.1.2B | |

9.2.1.75 UTRAN Access Point Position with Altitude

The UTRAN Access Point Position with Altitude indicates the exact geographical position of the base station antenna. The altitude shall be included when available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|--------------------------|-----------------------|
| Geographical Coordinates | M | | 9.2.1.30F | |
| Altitude and direction | 0 | | 9.2.1.2B | |

9.2.1.76 SFN-SFN Measurement Time Stamp

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|-----------------------|---|
| CHOICE Mode | <u>M</u> | | | |
| > FDD <i>FDD</i> | | | | |
| >>SFN | М | | 9.2.1.52A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| > TDD TDD | | | | |
| >>SFN | M | | 9.2.1.52A | Indicates the SFN of the reference cell at which the measurement has been performed. |
| >>Time Slot | M | | 9.2.1.56 | Indicates the Time Slot of the reference cell at which this measurement has been performed. |

9.2.1.77 SFN-SFN Value

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|-------------------------------|
| CHOICE Mode | M | | | |
| > FDD <i>FDD</i> | | | | |
| >>SFN-SFN | M | | INTEGER(0. . 614399) | According to mapping in [23]. |
| > TDD <i>TDD</i> | | | | |
| >>SFN-SFN | M | | INTEGER(0. . 40961) | According to mapping in [24]. |

9.2.1.78 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-------------------------------------|-----------------------|
| SCTD Indicator | | | ENUMERAT ED(active, inactive) | |

9.2.1.79 Congestion Cause

The Congestion Cause IE indicates the cause of a congestion situation:

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|---|--------------------------|
| Congestion Cause | | | ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources,) | |

The meaning of the different congestion cause values is described in the following table:

| Congestion cause | Meaning |
|----------------------------|---|
| UTRAN Dynamic Resources | UL and/or DL resource congestion situation mainly caused by the UL and/or DL UTRAN Dynamic Resources. This type of congestion situation is, e.g. related to the limitation of the DL transmitted carrier power of the cell(s), or the UL Interference situation in the concerned cell(s). |
| UTRAN Semistatic Resources | UL and/or DL resource congestion situation mainly related to UTRAN Semistatic Resources (e.g. channelisation codes, Node-B resources,). |

9.2.2 FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

9.2.2.a ACK-NACK Repetition Factor

The ACK-NACK Repetition Factor IE indicates the consecutive repetition of the ACK and NACK.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------------|----------|-------|-----------------------|-----------------------|
| ACK-NACK Repetition | | | INTEGER | Step: 1 |
| Factor | | | (1,4,) | |

9.2.2.b ACK Power Offset

The ACK Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|------------------|----------|-------|-----------------------|------------------------------|
| ACK Power Offset | | | INTEGER | According to mapping in ref. |
| | | | (08) | [21] subclause 4 2 1 |

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-----------------------|--|---|
| CM Configuration Change CFN | M | | CFN 9.2.1.9 | |
| Transmission Gap Pattern Sequence Status | | 0 <maxtgps></maxtgps> | | If the group is not present, none of the pattern sequences are activated. |
| >TGPSI Identifier | M | | INTEGER(1. . <maxtgps >)</maxtgps | Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be activated.</maxtgps> |
| >TGPRC | M | | INTEGER(0. .511) | The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity. |
| >TGCFN | М | | CFN 9.2.1.9 | Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence. |

| Range bound | Explanation |
|-------------|--|
| maxTGPS | Maximum number of active pattern sequences. Value 6. |

9.2.2.B Adjustment Period

Adjustment Period IE defines the period to be used for power balancing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| Adjustment Period | | | INTEGER | Unit: Frames |
| | | | (1 256) | |

9.2.2.C Adjustment Ratio

Adjustment Ratio IE (Radj) defines the convergence rate used for the associated Adjustment Period.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|--|
| Adjustment Ratio | | | INTEGER (0 100) | The Adjustment Ratio is given with a granularity of 0.01 0 -> 0.00 1 -> 0.01 |
| | | | | 100 -> 1.00 |

9.2.2.D Cell Capability Container FDD

The Cell Capability Container FDD indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|---|
| Cell Capability Container FDD | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Flexible Hard Split Support Indicator. The second bit: Delayed Activation Support Indicator. The third bit: HS-DSCH Support Indicator. The fourth bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.2.1 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip Offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Chip Offset | | | INTEGER (038399) | Unit: Chips |

9.2.2.2 Closed Loop Mode1 Support Indicator

The Closed Loop Mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| Closed Loop Mode1 Support | | | ENUMERAT | |
| Indicator | | | ED(Closed | |
| | | | loop mode1 | |
| | | | Supported, | |
| | | | Closed loop | |
| | | | mode1 not | |
| | | | supported). | |

9.2.2.3 Closed Loop Mode2 Support Indicator

The Closed Loop Mode2 Support Indicator indicates whether the particular cell is capable to support Closed loop mode2 or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| Closed Loop Mode2 Support | | | ENUMERAT | |
| Indicator | | | ED(Closed | |
| | | | loop mode2 | |
| | | | Supported, | |
| | | | Closed loop | |
| | | | mode2 not | |
| | | | supported). | |

9.2.2.3A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------------|----------|-------|--------------------------------------|--|
| Closed Loop Timing Adjustment Mode | | | ENUMERAT ED(Offset1, Offset2,) | According to [10] subclause 7.1: Offset1 = slot(j+1)mod15 Offset2 = slot(j+2)mod15 |

9.2.2.4 Compressed Mode Method

Void

9.2.2.4A DCH FDD Information

The DCH FDD Information IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------------------|----------|-----------------------------------|------------------|-------------|-------------|-------------|
| | | | and Reference | Description | | Criticality |
| DCH FDD Information | | 1 <maxno ofDCHs></maxno | | | - | |
| >Payload CRC Presence Indicator | М | | 9.2.1.42 | | _ | |
| >UL FP Mode | М | | 9.2.1.67 | | _ | |
| >ToAWS | М | | 9.2.1.58 | | _ | |
| >ToAWE | М | | 9.2.1.57 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | М | | 9.2.1.16 | | _ | |
| >>TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | - | |
| >>Transport Format Set | М | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | М | | 9.2.1.64 | For the DL. | _ | |
| >>BLER | М | | 9.2.1.4 | For the UL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the DL. | _ | |
| >>Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | M | | 9.2.1.29 | | _ | |
| >>QE-Selector | M | | 9.2.1.46A | | _ | |
| >>DRAC control | M | | 9.2.2.13 | | _ | |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | MO | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | 0 | | 9.2.1.68B | | YES | ignore |

| | Range bound | Explanation |
|-----------|-------------|------------------------------------|
| maxnoofDC | CHs | Maximum number of DCHs for one UE. |

9.2.2.5 D-Field Length

Void

9.2.2.6 Diversity Control Field

Void.

9.2.2.7 Diversity Indication

Void.

9.2.2.8 Diversity Mode

Define the diversity mode to be applied.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| Diversity Mode | | | ENUMERAT | |
| | | | ED(None, | |
| | | | STTD, | |
| | | | Closed loop | |
| | | | mode 1, | |
| | | | Closed loop | |
| | | | mode2,) | |

9.2.2.9 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|-----------------------|
| DL DPCH Slot Format | | | INTEGER | |
| | | | (016,) | |

9.2.2.9A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required. It also indicates whether the timing adjustment shall consist of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|---------------------------|---|
| DL DPCH Timing Adjustment | | | ENUMERAT ED(timing | The size of the timing adjustment is 256 chips. |
| | | | advance, timing delay) | |

9.2.2.10 DL Power

Void

9.2.2.10A DL Power Balancing Information

The DL Power Balancing Information IE provides information for power balancing to be activated in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|------------------------------|------------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| Power Adjustment Type | M | | 9.2.2.28 | | _ | |
| DL Reference Power | C-Common | | DL power 9.2.1.21A | Power on DPCH | - | |
| DL Reference Power Information | C-Individual | 1 <maxnoof RLs></maxnoof | | | - | |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Reference Power | М | | DL power 9.2.1.21A | Power on DPCH | - | |
| Max Adjustment Step | C- CommonOrIn dividual | | 9.2.2.23 | | _ | |
| Adjustment Period | C- CommonOrIn dividual | | 9.2.2.B | | _ | |
| Adjustment Ratio | C- CommonOrIn dividual | | 9.2.2.C | | _ | |

| Condition | Explanation |
|--------------------|--|
| Common | The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common". |
| Individual | The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Individual". |
| CommonOrIndividual | The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common' or 'Individual". |

| Range Bound | Explanation |
|-------------|---|
| maxnoofRLs | Maximum number of Radio Links for a UE. |

9.2.2.10B DL Power Balancing Activation Indicator

The DL Power Balancing Activation Indicator IE indicates that the power balancing is activated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|-----------------------|
| DL Power Balancing | | | ENUMERATED(DL | |
| Activation Indicator | | | Power Balancing | |
| | | | Activated). | |

9.2.2.10C DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|--|----------------|--------------------------|-------------|----------------------|
| | | | Reference | | | |
| Common DL Reference | 0 | | DL power | Power on | _ | |
| Power | | | 9.2.1.21A | DPCH | | |
| Individual DL Reference | | 0 <maxnoof< td=""><td></td><td></td><td>_</td><td></td></maxnoof<> | | | _ | |
| Power Information | | RLs> | | | | |
| >RL ID | M | | 9.2.1.49 | | _ | |
| >DL Reference Power | M | | DL power | Power on | _ | |
| | | | 9.2.1.21A | DPCH | | |

| Range bound | Explanation |
|-------------|---------------------------------|
| maxnoofRLs | Maximum number of RLs for a UE. |

9.2.2.10D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|--------------------------|-----------------------|
| DL Power Balancing | | | ENUMERATED(DL | |
| Updated Indicator | | | Power Balancing | |
| | | | Updated). | |

9.2.2.11 DL Scrambling Code

DL Scrambling code to be used by the RL. One cell may have multiple DL Scrambling codes available.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|---|
| DL Scrambling Code | | | INTEGER (015) | 0= Primary scrambling code of the cell 115= Secondary scrambling code |

9.2.2.12 Downlink Frame Type

Void

9.2.2.12A DPC Mode

The DPC Mode IE indicates the DPC mode to be applied [10].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|---|---|
| DPC Mode | | | ENUMERAT TED (Mode0, Mode1,) | Mode0: The DRNS shall estimate the UE transmitted TPC command and update the DL power in every slot Mode1: The DRNS shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots |

9.2.2.13 DRAC Control

This IE indicates whether the DCH is control by DRAC or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|---|--|
| DRAC Control | | | ENUMERAT ED (Requested, Not- Requested) | Requested means that DCH is controlled by DRAC |

9.2.2.13A DSCH FDD Information

The DSCH FDD Information IE provides information for DSCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------------------|-----------|------------------------------------|-----------------------------|---|-------------|-------------------------|
| DSCH Specific FDD Information | | 1 <maxno ofDSCHs></maxno | | See Note 1 | _ | |
| >DSCH ID | М | UIDSCHS> | 9.2.1.26A | below. | _ | |
| >TrCH Source Statistics Descriptor | M | | 9.2.1.65 | | | |
| >Transport Format Set | М | | 9.2.1.64 | For DSCH | _ | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >BLER | M | | 9.2.1.4 | | _ | |
| >Traffic Class | <u>MO</u> | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| PDSCH RL ID | M | | RL ID 9.2.1.49 | | _ | |
| TFCS | M | | 9.2.1.63 | For DSCH | _ | |
| Enhanced DSCH PC | 0 | | 9.2.2.13D | | YES | ignore |

| Range bound | Explanation |
|--------------|-------------------------------------|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2-maxnoofDSCHs are represented by separate ASN.1 structures with different criticality.

9.2.2.13B DSCH FDD Information Response

The DSCH FDD Information Response IE provides information for DSCHs that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|------------------------------------|-----------------------------|--|-------------|-------------------------|
| DSCH Specific FDD Information Response | | 1 <maxno ofDSCHs></maxno | | | _ | |
| >DSCH ID | M | | 9.2.1.26A | | _ | |
| >DSCH Flow Control Information | М | | 9.2.1.26B | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| PDSCH Code Mapping | М | | 9.2.2.27A | PDSCH code mapping to be used | - | |

| Range bound | Explanation |
|--------------|-------------------------------------|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |

9.2.2.13Bb DSCH-RNTI

Void.

9.2.2.13C FDD DCHs To Modify

The FDD DCHs To Modify IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type | Semantics | Criticality | Assigned |
|-------------------------------------|----------|-----------------------------------|-----------|-------------|-------------|-------------|
| | | | and | Description | | Criticality |
| | | | Reference | | | |
| FDD DCHs To Modify | | 1 <maxno ofDCHs></maxno | | | _ | |
| >UL FP Mode | 0 | | 9.2.1.67 | | _ | |
| >ToAWS | 0 | | 9.2.1.58 | | _ | |
| >ToAWE | 0 | | 9.2.1.57 | | _ | |
| >Transport Bearer Request Indicator | М | | 9.2.1.61 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | M | | 9.2.1.16 | | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the DL. | _ | |
| >>Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | 0 | | 9.2.1.29 | | - | |
| >>DRAC Control | 0 | | 9.2.2.13 | | _ | |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.2.13D Enhanced DSCH PC

The Enhanced DSCH PC includes all the parameters which are needed for DSCH power control improvement during soft handover.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH PC Wnd | M | | 9.2.2.13G | |
| Enhanced DSCH PC Counter | M | | 9.2.2.13E | |
| Enhanced DSCH Power Offset | M | | 9.2.2.13H | |

9.2.2.13E Enhanced DSCH PC Counter

The Enhanced DSCH PC Counter parameter gives the number of correct cell ID command to receive in the averaging window, *Enhance DSCH PC Wnd* IE, see ref. [10] subclause 5.2.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH PC | | | INTEGER(1. | |
| Counter | | | .50) | |

9.2.2.13F Enhanced DSCH PC Indicator

The Enhanced DSCH PC Indicator indicates whether Enhanced DSCH PC is in use by the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|--|-----------------------|
| Enhanced DSCH PC Indicator | | | ENUMERAT ED(Enhance d DSCH PC Active in the UE, Enhanced DSCH PC not Active in the UE) | |

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9.2.2.13G Enhanced DSCH PC Wnd

The Enhanced DSCH PC Wnd parameter shows the window size to decide primary or non-primary cell, see ref. [10] subclause 5.2.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Enhanced DSCH PC Wnd | | | INTEGER(1. | |
| | | | .10) | |

9.2.2.13H Enhanced DSCH Power Offset

The Enhanced DSCH Power Offset parameter gives the power offset to be added on DSCH when cell is decided to be primary.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|-----------------------|
| Enhanced DSCH Power | | | INTEGER(- | Unit dB, step 1 dB |
| Offset | | | 150) | - |

9.2.2.13I Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|-----------------------|--|
| Enhanced Primary CPICH Ec/No | | | INTEGER(0. .49) | According to the mapping of the Primary CPICH Ec/lo UE measurement defined in ref. |
| | | | | [23] and [24] |

9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|-----------------------|--|
| FDD DL Channelisation Code Number | | | INTEGER(0. . 511) | According to the mapping in [27]. |
| | | | | The maximum value is equal to the DL spreading factor –1 |

9.2.2.14A FDD DL Code Information

The FDD DL Code Information IE provides FDD DL Code information for all DPCHs of one Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---------------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| FDD DL Code Information | | 1 <maxnoof DLCodes</maxnoof | | | _ | |
| >DL Scrambling Code | М | | 9.2.2.11 | | _ | |
| >FDD DL Channelisation Code Number | М | | 9.2.2.14 | | _ | |
| >Transmission Gap Pattern Sequence Scrambling Code Information | 0 | | 9.2.2.47B | | _ | |

| Range bound | Explanation | | |
|----------------|---|--|--|
| maxnoofDLCodes | Maximum number of DL Channelisation Codes for | | |
| | one UE. | | |

9.2.2.15 FDD S-CCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 c hips.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|--|
| FDD S-CCPCH Offset | | | INTEGER(0. . 149) | 0: 0 chip 1: 256 chip 2: 512 chip 149: 38144 chip ref. [8] |

9.2.2.16 FDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| FDD TPC Downlink Step | | | ENUMERAT | |
| Size | | | ED(0.5, 1, | |
| | | | 1.5, 2,) | |

9.2.2.16A First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------------|----------|-------|----------------|-----------------------|
| | | | Reference | |
| First RLS Indicator | | | ENUMERAT | |
| | | | ED(first RLS, | |
| | | | not first RLS) | |

9.2.2.17 Gap Position Mode

Void.

9.2.2.18 Gap Period (TGP)

Void.

9.2.2.19 Gap Starting Slot Number (SN)

Void

9.2.2.19a HS-DSCH FDD Information

The HS-DSCH FDD Information IE provides information for HS-DSCH MAC-d flows to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|-----------------|---|--|---|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information | | 1 <maxno ofMACdFl ows></maxno | | | - | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| >Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| Priority Queue Information | | 1 <maxno ofPrioQue ues></maxno | | | _ | |
| >Priority Queue ID | M | | 9.2.1.45A | | _ | |
| >Associated HS-DSCH MAC-d Flow | М | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >T1 | М | | 9.2.1.54A | | _ | |
| >Discard Timer | 0 | | 9.2.1.19C | | _ | |
| >MAC-hs Window Size | M | | 9.2.1.34C | | _ | |
| >MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | _ | |
| >MAC-d PDU Size Index | | 1 <maxno ofMACdP DUindexes ></maxno | | | _ | |
| >>SID | M | | 9.2.1.52D | | _ | |
| >>MAC-d PDU Size | M | | 9.2.1.34A | | _ | |
| UE Capabilities information | | 1 | | | _ | |
| >HS-DSCH Physical Layer Category | М | | 9.2.1.30Oa | | _ | |
| >MAC-hs reordering buffer size | M | | 9.2.1.34Ab | | _ | |
| CQI Feedback Cycle k | M | | 9.2.2.24a | | _ | |
| CQI Repetition Factor | C- CQICyclek | | 9.2.2.24c | | _ | |
| ACK-NACK Repetition Factor | M | | 9.2.2.a | | _ | |
| CQI Power Offset | M | | 9.2.2.24b | | _ | |
| ACK Power Offset | М | | 9.2.2.b | | _ | |
| NACK Power Offset | М | | 9.2.2.26a | | _ | |
| HS-SCCH Power Offset | 0 | | 9.2.2.19d | | _ | |

| Condition | Explanation |
|-----------|--|
| CQICyclek | The IE shall be present if the CQI Feedback Cycle k IE is set to |
| | a value greater than 0. |

| Range bound | Explanation | | |
|-----------------------|--|--|--|
| MaxnoofMACdFlows | Maximum number of MAC-d flows. | | |
| MaxnoofPrioQueues | Maximum number of Priority Queues. | | |
| maxnoofMACdPDUindexes | Maximum number of MAC-d PDU Size Indexes (SIDs). | | |

9.2.2.19b HS-DSCH FDD Information Response

The HS-DSCH FDD Information Response IE provides information for HS-DSCH MAC-d flows that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information Response | | 1 <maxno ofMACdFl ows></maxno | | | _ | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.300 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >HS-DSCH Initial Capacity Allocation | 0 | | 9.2.1.30Na | | _ | |
| HS-SCCH Specific Information Response | | 1 <maxno ofHSSCC Hcodes></maxno | | | _ | |
| >Code Number | М | | INTEGER(0127) | | _ | |
| Measurement Power Offset | 0 | | 9.2.2.24d | | _ | |
| CHOICE HARQ Memory Partitioning | М | | | | _ | |
| >Implicit | | | | | _ | |
| >>Number of Processes | М | | INTEGER (18,) | | 1 | |
| >Explicit | | | | | _ | |
| >>HARQ Memory Partitioning Information | | 1 <maxno ofHARQpr ocesses></maxno | | | _ | |
| >>>Process Memory Size | M | | 9.2.1.45B | See [16] | _ | |

| Range bound | Explanation |
|----------------------|-----------------------------------|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofHSSCCHcodes | Maximum number of HS-SCCH codes. |
| maxnoofHARQprocesses | Maximum number of HARQ processes. |

9.2.2.19c HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|-------------------------------|----------|-------|-----------------------------|-------------------------|-------------|-------------------------|
| HS-SCCH Code Change Indicator | 0 | | 9.2.1.30R | | - | |
| CQI Feedback Cycle k | 0 | | 9.2.2.24a | | _ | |
| CQI Repetition Factor | 0 | | 9.2.2.24c | | _ | |
| ACK-NACK Repetition Factor | 0 | | 9.2.2.a | | _ | |
| CQI Power Offset | 0 | | 9.2.2.24b | | _ | |
| ACK Power Offset | 0 | | 9.2.2.b | | _ | |
| NACK Power Offset | 0 | | 9.2.2.26a | | _ | |

9.2.2.19d HS-SCCH Power Offset

The HS-SCCH Power Offset IE indicates the Power offset relative to the pilot bits on the DL DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|----------------------|----------|-------|-----------------------|--------------------------|
| HS-SCCH Power Offset | | | INTEGER | Step 0.25 dB, range -32- |
| | | | (0255) | +31.75 dB |

9.2.2.20 IB_SG_POS

First position of an Information Block segment in the SFN cycle (IB_SG_POS < IB_SG_REP).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------------|
| IB_SG_POS | | | INTEGER | Only even positions allowed. |
| | | | (04094) | Reference [16] |

9.2.2.21 IB SG REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod $IB_SG_REP = IB_SG_POS$.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|---|--|
| IB_SG_REP | | | ENUMERAT ED(4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096) | Repetition period for the IB segment in frames |

9.2.2.21a Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links for the UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Inner Loop DL PC Status | | | ENUMERAT | |
| | | | ED(Active, | |
| | | | Inactive) | |

9.2.2.21A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, DRNS shall use the limited power increase algorithm as specified in [10], subclause 5.2.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|------------------------|----------|-------|-------------|-----------------------|
| | | | Reference | |
| Limited Power Increase | | | ENUMERAT | |
| | | | ED(Used, | |
| | | | Not used,) | |

9.2.2.21B IPDL FDD Parameters

The IPDL FDD Parameters IE provides the information for the IPDL Configuration applied in FDD mode.

| IE/Group name | Presence | Range | IE Type and | Semantics Description |
|-----------------------|----------|-------|--------------|-----------------------|
| | | | Reference | |
| IP spacing FDD | M | | ENUMERAT | See [10] |
| | | | ED(5,7,10,1 | |
| | | | 5,20,30,40,5 | |
| | | | 0,) | |
| IP length | M | | ENUMERAT | See [10] |
| | | | ED(5,10,) | |
| IP offset | M | | INTEGER(0. | See [10] |
| | | | .9) | |
| Seed | M | | INTEGER(0. | See [10] |
| | | | .63) | |
| Burst mode parameters | 0 | | 9.2.1.4B | |

9.2.2.21C Length of TFCI2

This IE indicates the length measured in number of bits of TFCI(field 2). The length of TFCI (field 1) is set to the 10's complement of the length of TFCI(field 2).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|-----------------------|-----------------------|
| Length of TFCI2 | | | <i>INTEGE</i> INT | |
| | | | EGER(110) | |

9.2.2.22 Max Adjustment Period

Void.

9.2.2.23 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustments shall be maximum 1 dB. This value does not include the DL inner loop PC adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|-----------------------|
| Max Adjustment Step | | | INTEGER(1. | Slots |
| | | | .10) | |

9.2.2.24 Max Number of UL DPDCHs

Maximum number of uplink DPDCHs during the connection. Needed by the rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Max Number of UL DPDCHs | | | INTEGER | |
| | | | (16) | |

9.2.2.24a CQI Feedback Cycle k

The CQI Feedback Cycle k IE provides the duration of the CQI feedback cycle.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| CQI Feedback Cycle k | | | ENUMERAT | Unit ms |
| | | | ED (0, 2, 4, | |
| | | | 8, 10, 20, 40, | |
| | | | 80, 160,) | |

9.2.2.24b CQI Power Offset

The CQI Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|------------------|----------|-------|-----------------------|------------------------------|
| CQI Power Offset | | | INTEGER | According to mapping in ref. |
| | | | (08,) | [21] subclause 4.2.1. |

9.2.2.24c CQI Repetition Factor

The CQI Repetition Factor IE indicates the consecutive repetition of the CQI.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| CQI Repetition Factor | | | INTEGER (1,4,) | Step: 1 |

9.2.2.24d Measurement Power Offset

The Measurement Power Offset IE is used as defined in [10] subclause 6A.2.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| Measurement Power | | | INTEGER (-1226) | Unit: dB |
| OffsetMeasurement Power | | | , , | Range: -613dB |
| Offset | | | | Step: 0.5dB |

9.2.2.24A Min DL Channelisation Code Length

Void

9.2.2.25 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH during the connection. Needed by rate matching algorithm.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------------------|----------|-------|--|-----------------------|
| Min UL Channelisation Code Length | | | ENUMERAT ED(4,8,16, 32,64,128, 256) | |

9.2.2.26 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Multiplexing Position | | | ENUMERAT | |
| | | | ED(Fixed, | |
| | | | Flexible) | |

9.2.2.26a NACK Power Offset

The NACK Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------|----------|-------|-----------------------|------------------------------|
| NACK Power Offset | | | INTEGER | According to mapping in ref. |
| | | | (08) | [21] subclause 4.2.1. |

9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| Number of DL | | | INTEGER(1. | |
| Channelisation Codes | | | .8) | |

9.2.2.27 Pattern Duration (PD)

Void

9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| PCP Preamble | | | INTEGER(0. | In number of frames. |
| | | | .7,) | |

9.2.2.27A PDSCH Code Mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH. A fourth option is also provided which allows the UTRAN to replace individual entries in the TFCI(field 2) to PDSCH code mapping table with new PDSCH code values.

Method #1 - Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. Each TFCI(field2) value corresponds to a given PDSCH channelisation code or set of PDSCH codes for multi-code. The DRNS maps TFCI(field2) values to PDSCH codes in the following way:

- The PDSCH codes used for TFCI(field 2) = 0 are given by the SF of the Code Group 1 (i.e. first instance in *PDSCH code mapping*) and the code numbers between CodeNumber₀ (where CodeNumber₀ = "Start code number" of Code Group 1) and CodeNumber₀ + "multi-code info" 1.
- This continues with unit increments in the value of TFCI (Field2) mapped to either unit increments in code numbers or groups of contiguous code numbers in case of multi-code, this until "Stop code number" is reached: So the PDSCH codes used for TFCI(field 2) = k (for k > 0 and k < ("Stop code number" "Start code number" + 1) DIV k) are given by the SF of the Code Group 1 and the code numbers between CodeNumber_k = CodeNumber_{k-1} + "multi-code info" and CodeNumber_k + "multi-code info" 1.
 If "Stop code number" = "Start code number" + "multi-code info" 1 then this is to be interpreted as defining the mapping between the channelisation code(s) and a single TFCI.
- The DRNS constructs its mapping table by repeating this process for all the Code Groups in the order they are instantiated in *PDSCH code mapping*. The first TFCI(field 2) value used in each group is the largest TFCI(field 2) value reached in the previous group incremented by one.

Note: This imposes that "Stop code number"— "Start code number"+ 1 is a multiple of the value "multi-code info" for each instance of *PDSCH code mapping*. Furthermore, in the case in which multi-code is not used, then "multi-code info" = 1 and the process above also applies.

Method #2 - Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code or set of PDSCH codes for multi-code.

- The set of PDSCH codes specified in the first instance applies for all values of TFCI(field 2) between 0 and the specified "Max TFCI(field2)".
- The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous instance incremented by one. So the set of PDSCH codes specified in a given instance apply for all the values of TFCI(field 2) between the "Max TFCI(field2) value" specified in the previous instance incremented by one and the specified "Max TFCI(field2)" of the considered instance.

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #3 - Explicit

The mapping between TFCI (field 2) value and PDSCH channelisation code (or a set of PDSCH codes for multicode) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #4 - Replace

The "TFCI (field2)" value(s) for which the mapping to PDSCH channelisation code (or a set of PDSCH codes for multicode) is changed are explicitly signalled. Furthermore, the new mapping between TFCI(field 2) value and PDSCH channelisation code(s) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

| IE/Group name | Presence | Range | IE Type and | Semantics Description |
|--------------------|----------|-------|--------------------|-------------------------------|
| | | | Reference | |
| DL Scrambling Code | M | | INTEGER | Scrambling code on which |
| _ | | | (015) 9 | PDSCH is transmitted. |
| | | | .2.2.11 | 0= Primary scrambling code of |
| | | | <u></u> | the cell |
| | | | | 115 = Secondary |
| | | | | scrambling code |

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| Choice Signalling Method >Code Range | M | | | |
|--------------------------------------|---|--|---|---|
| >>PDSCH Code Mapping | | 1 <maxno CodeGrou ps></maxno | | |
| >>>Spreading Factor | M | | ENUMERAT EDINTEGER (4, 8, 16, 32, 64, 128, 256) | |
| >>>Multi-code Info | М | | INTEGER(116) | |
| >>>Start Code Number | М | | INTEGER(0. .maxCodeNu mComp-1) | PDSCH code start, Numbering as described in [16] |
| >>>Stop Code Number | М | | INTEGER(0. .maxCodeNu mComp-1) | PDSCH code stop, Numbering as described in [16] |
| >TFCI Range | | | , , | |
| >>DSCH Mapping | | 1 <maxno TFClGroup s></maxno | | |
| >>>Max TFCI(field2) Value | M | | INTEGER(11023) | This is the maximum value in the range of TFCI(field 2) values for which the specified PDSCH code applies |
| >>>Spreading Factor | M | | ENUMERAT EDINTEGER (4, 8, 16, 32, 64, 128, 256) | SF of PDSCH code |
| >>>Multi-code Info | М | | INTEGER(116) | |
| >>>Code Number | M | | INTEGER(0. .maxCodeNu mComp-1) | Code number of PDSCH code. Numbering as described in [16] |
| >Explicit | | | | |
| >>PDSCH Code | | 1 <maxtf Cl_2_Com bs></maxtf | | The first instance of the parameter PDSCH code corresponds to TFCI (field2) = 0, the second to TFCI(field 2) = 1 and so on. |
| >>>Spreading Factor | M | | ENUMERAT EDINTEGER (4, 8, 16, 32, 64, 128, 256) | SF of PDSCH code |
| >>>Multi-code Info | М | | INTEGER(116) | |
| >>>Code Number | M | | INTEGER(0. .maxCodeNu mComp-1) | Code number of PDSCH code. Numbering as described in [16] |
| >Replace | | | | |
| >>Replaced PDSCH code | | 1 <maxtf CI_2_Com bs></maxtf | | |
| >>>TFCI (field2) | M | | #NTEGEINT EGER(110 23) | Value of TFCI(field 2) for which PDSCH code mapping will be changed |
| >>>Spreading Factor | М | | ENUMERAT EDINTEGER (4, 8, 16, 32, 64, 128, 256) | SF of PDSCH code |
| >>>Multi-code Info | М | | INTEGER(1. .16) | |
| >>>Code Number | М | | INTEGER(0. | Code number of PDSCH code. |

| | .maxCodeNu | Numbering as described in |
|--|------------|---------------------------|
| | mComp-1) | [16] |

| Range Bound | Explanation |
|-----------------|---|
| maxCodeNumComp | Maximum number of codes at the defined spreading |
| | factor, within the complete code tree. |
| maxTFCI_2_Combs | Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI field 2) |
| maxNoTFCIGroups | Maximum number of groups, each group described in terms of a range of TFCl(field 2) values for which a single PDSCH code applies. |
| maxNoCodeGroups | Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies. |

9.2.2.27B Phase Reference Update Indicator

The Phase Reference Update Indicator IE indicates that the phase reference for the radio link needs to be changed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| Phase Reference Update | | | ENUMERATED | |
| indicator | | | (Phase | |
| | | | Reference | |
| | | | needs to be | |
| | | | changed) | |

9.2.2.28 Power Adjustment Type

Defines the characteristic of the power adjustment.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|-----------------------|-----------------------|
| Power Adjustment Type | | | ENUMERAT | |
| , | | | ED(None, | |
| | | | Common, | |
| | | | Individual) | |

9.2.2.29 Power Control Mode (PCM)

Void.

9.2.2.30 Power Offset

This IE defines a power offset respect the Downlink transmission power of a DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|------------------------------|
| Power Offset | | | | Unit dB, Step 0.25 dB, range |
| | | | INTEGER(0. | 0-6 dB |
| | | | .24) | |

9.2.2.31 Power Resume Mode (PRM)

Void.

9.2.2.31A Preamble Signatures

Void.

9.2.2.32 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|--|
| Primary CPICH Ec/No | | | INTEGER(- 30+30) | Unit dB, step 1 dB The value range is typically within the range of -24 dB to 0 dB according to the CPICH Ec/lo UE measurement defined in ref. [23]. |

9.2.2.32A Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--|----------|-------|--|-----------------------|
| Primary CPICH Usage For Channel Estimation | | | ENUMERATED (Primary CPICH may be used, Primary CPICH shall not be used) | |

9.2.2.33 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------------|
| Propagation Delay | | | | Unit: Chips. Step: 3 chips. |
| | | | INTEGER(0. | 0=0 chips, |
| | | | .255) | 1=3 chips |

9.2.2.33A PRACH Minimum Spreading Factor

Void.

9.2.2.34 QE-Selector

Void.

9.2.2.34a Qth Parameter

This parameter indicates the Quality threshold for reliable detection of primary cell ID in SSDT [10].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|-----------------------|-----------------------|
| Qth Parameter | | | INTEGER (- | Unit dB |
| | | | 200) | Range: - 20 0 dB |
| | | | | Step 1 dB |

9.2.2.34A RACH Sub Channel Numbers

Void.

9.2.2.35 RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| RL Set ID | | | INTEGER (031) | |

9.2.2.35A Received Total Wide Band Power

The parameter indicates the Received total wide band power in a cell, see ref. [11].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|-----------------------|-------------------------------|
| Received Total Wide | | | INTEGER(0. | According to mapping in [23]. |
| Band Power | | | .621) | |

9.2.2.36 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SSDT Cell ID to the network.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| S Field Length | | | ENUMERAT ED(1, 2,) | |

9.2.2.37 Scrambling Code Change

Void.

9.2.2.37A Scrambling Code Number

Void.

9.2.2.37B Secondary CCPCH Info

The *Secondary CCPCH Info* IE provides information on scheduling of broadcast information for DRAC on a Secondary CCPCH in one cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------------|-------------------|--|-----------------------------|--|-------------|-------------------------|
| FDD S-CCPCH Offset | М | | 9.2.2.15 | Corresponds | _ | |
| | | | | to: τ _{s-} | | |
| | | | | _{CCPCH,k} , see ref. [8] | | |
| DL Scrambling Code | M | | 9.2.2.11 | | _ | |
| FDD DL Channelisation Code Number | M | | 9.2.2.14 | | _ | |
| TFCS | M | | 9.2.1.63 | For the DL. | _ | |
| Secondary CCPCH Slot Format | M | | 9.2.2.38 | | ı | |
| TFCI Presence | C - SlotFormat | | 9.2.1.55 | | _ | |
| Multiplexing Position | M | | 9.2.2.26 | | _ | |
| STTD Indicator | M | | 9.2.2.44 | | _ | |
| FACH/PCH Information | | 1 <maxfac Hcount+1></maxfac | | | _ | |
| >TFS | | | 9.2.1.64 | For each FACH, and the PCH when multiplexed on the same Secondary CCPCH | _ | |
| IB Scheduling Information | | 1 | | | _ | |
| >IB_SG_REP | M | | 9.2.2.21 | | _ | |
| >IB Segment Information | | 1 <maxibse G></maxibse | | | _ | |
| >>IB_SG_POS | М | | 9.2.2.20 | | _ | |

| Condition | Explanation | | |
|------------|--|--|--|
| SlotFormat | The IE shall be present if the Secondary CCPCH Slot Format IE is | | |
| | equal to any of the values from 8 to 17. | | |

| Range bound | | Explanation |
|-------------|--------------|--|
| | maxFACHCount | Maximum number of FACHs mapped onto a Secondary CCPCH. |
| | maxIBSEG | Maximum number of segments for one Information Block. |

9.2.2.38 Secondary CCPCH Slot Format

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|-----------------------|-----------------------|
| Secondary CCPCH Slot Format | | | INTEGER(017,) | See ref. [8]. |

9.2.2.38A Secondary CPICH Information

The Secondary CPICH Information IE provides the information on the Secondary CPICH when it can be used for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| DL Scrambling Code | <u>M</u> | | 9.2.2.11 | |
| FDD DL Channelisation | M | | 9.2.2.14 | |
| Code Number | | | | |

9.2.2.38B Secondary CPICH Information Change

The Secondary CPICH Information Change IE indicates modification of information of the Secondary CPICH for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|--------------------------|-----------------------|
| CHOICE Secondary CPICH Information Change | M | | | |
| >New Secondary CPICH | | | | |
| >>Secondary CPICH Information | М | | 9.2.2.38A | |
| >Secondary CPICH Shall Not Be Used | | | NULL | |

9.2.2.39 Slot Number (SN)

Void

9.2.2.39a Split Type

This parameter indicates if the "Hard" or "Logical" is used for the TFCI₋split mode.

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|---------------|----------|-------|--------------------------------------|---|
| | | | Reference | |
| Split Type | | | ENUMERAT EENUMERA TED(Hard, Logical) | "Hard": meaning that TFCI (field 1) and TFCI (field 2) are each 5 bits long and each field is block coded separately. "Logical": meaning that on the physical layer TFCI (field 1) and TFCI (field 2) are concatenated, field 1 taking the most significant bits and field 2 taking the least significant bits). The whole is then encoded with a single block code. |

9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| SRB Delay | | | INTEGER(0. | In number of frames. |
| | | | .7,) | |

9.2.2.40 SSDT Cell Identity

The SSDT Cell Identity is a temporary ID for SSDT assigned to a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|-----------------------|-----------------------|
| SSDT Cell Identity | | | ENUMERAT | |
| | | | ED(a <u>, b, c,</u> | |
| | | | <u>d, e, f, g, h)</u> | |

9.2.2.40A SSDT Cell Identity for EDSCHPC

The SSDT Cell Identity for EDSCHPC is a temporary ID for enhanced DSCH power control assigned to a cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| SSDT Cell Identity for | | | SSDT Cell | |
| EDSCHPC | | | Identity | |
| | | | 9.2.2.40 | |

9.2.2.41 SSDT Cell Identity Length

The SSDT Cell Identity Length parameter shows the length of the SSDT Cell ID.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| SSDT Cell Identity Length | | | ENUMERAT ED(Short, | |
| | | | Medium, Long) | |

9.2.2.42 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|-----------------------|-----------------------|
| SSDT Indication | | | ENUMERAT | |
| | | | ED(SSDT | |
| | | | Active in the | |
| | | | UE, SSDT | |
| | | | not Active in | |
| | | | the UE) | |

9.2.2.43 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|---|-----------------------|
| SSDT Support Indicator | | | ENUMERAT ED(SSDT Supported, SSDT not | |
| | | | supported). | |

9.2.2.44 STTD Indicator

Indicates if STTD is active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-------------------------------------|-----------------------|
| STTD Indicator | | | ENUMERAT ED(active, inactive) | |

9.2.2.45 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH in the cell or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| STTD Support Indicator | | | ENUMERAT | |
| | | | ED(STTD | |
| | | | Supported, | |
| | | | STTD not | |
| | | | Supported). | |

9.2.2.46 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| TFCI Signalling Mode | | | ENUMERAT | |
| | | | ED(Normal, | |
| | | | Split) | |

9.2.2.46A TFCI PC Support Indicator

The TFCI PC Support Indicator indicates whether the TFCI power control in the DSCH hard split mode can be applied to DL DPCH in the cell or not. TFCI PC Mode 1 means that the only one power offset(TFCI PO[4]) is applied in TFCI power control. TFCI PC Mode 2 means that the cell also supports enhanced DSCH power control and two power offset(TFCI PO and TFCI PO_primary[4]) are applied in TFCI power control.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------|----------|-------|-----------------------|-----------------------|
| TFCI PC Support Indicator | | | ENUMERAT | |
| | | | ED(TFCI PC | |
| | | | Mode 1 | |
| | | | Supported, | |
| | | | TFCI PC | |
| | | | Mode 2 | |
| | | | Supported) | |

9.2.2.47 Transmission Gap Distance (TGD)

Void.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-----------------------|--|---|
| Transmission Gap Pattern Sequence Information | | 1 <maxtgps></maxtgps> | | |
| >TGPSI Identifier | М | | INTEGER(1. . <maxtgps >)</maxtgps | Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps> |
| >TGSN | М | | INTEGER(014) | Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN. |
| >TGL1 | М | | INTEGER(1. .14) | The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots. |
| >TGL2 | 0 | | INTEGER(114) | The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1. |
| >TGD | M | | INTEGER (0, 15 269) | Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 = undefined). |
| >TGPL1 | М | | INTEGER(1144,) | The duration of transmission gap pattern 1 in frames. |
| >TGPL2 | 0 | | INTEGER(1144,) | The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1. |
| >UL/DL mode | М | | ENUMERAT EENUMERA TED(UL only, DL only, UL/DL) | Defines whether only DL, only UL, or combined UL/DL compressed mode is used. |
| >Downlink Compressed Mode Method | C-DL | | ENUMERAT ED(puncturin g, SF/2, higher layer scheduling,) | Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped. |
| >Uplink Compressed Mode Method | C-UL | | ENUMERAT ED(SF/2, higher layer scheduling,) | Method for generating uplink compressed mode gap. |
| >Downlink Frame Type | М | | ENUMERAT ED(A, B,) | Defines if frame type 'A' or 'B' shall be used in downlink compressed mode. |
| >DeltaSIR1 | М | | INTEGER(030) | Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) Step 0.1 dB, Range 0-3dB |

| >DeltaSIRafter1 | M | INTEGER (030) | Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB |
|-----------------|---|------------------|--|
| >DeltaSIR2 | 0 | INTEGER (030) | Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB |
| >DeltaSIRafter2 | 0 | INTEGER (030) | Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB |

| Condition | Explanation |
|-----------|---|
| UL | The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/DL". |
| DL | The IE shall be present if the <i>UL/DL mode</i> IE is set to "DL only" or "UL/DL". |

| Range bound | Explanation |
|-------------|---|
| maxTGPS | Maximum number of transmission gap pattern sequences. |

9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information

This IE indicates whether or not the alternative scrambling code will be used in the DRNS for the Downlink compressed mode method 'SF/2' in the Transmission Gap Pattern Sequence. For details see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|----------|-------|--|---|
| Transmission Gap Pattern Sequence Scrambling Code Information | | | ENUMERAT ED(code change, no code change) | Code change = alternative scrambling code will be used. |

9.2.2.48 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether Transmit Diversity shall be active or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|-----------------------|-----------------------|
| Transmit Diversity Indicator | | | ENUMERAT | |
| | | | ED(active, | |
| | | | inactive) | |

9.2.2.49 Transmit Gap Length (TGL)

Void

9.2.2.50 Tx Diversity Indicator

The Tx Diversity Indicator indicates if the following conditions are satisfied:

- Primary CPICH is broadcast from two antennas
- STTD is applied to Primary CCPCH
- TSTD is applied to Primary SCH and Secondary SCH

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| Tx Diversity Indicator | | | ENUMERAT | |
| - | | | ED(true, | |
| | | | false). | |

9.2.2.50A UE Support Of Dedicated Pilots For Channel Estimation

The *UE Support Of Dedicated Pilots For Channel Estimation* IE indicates whether the UE supports dedicated pilots for channel estimation or not for DCH or DSCH.

| IE/Group Name | Presence | Range IE Type and | | Semantics Description |
|-------------------------|----------|-------------------|------------|-----------------------|
| | | | Reference | |
| UE Support Of Dedicated | | | ENUMERATED | |
| Pilots For Channel | | | (Dedicated | |
| Estimation | | | pilots for | |
| | | | channel | |
| | | | estimation | |
| | | | supported) | |

9.2.2.50B UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

The *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE indicates whether the UE supports dedicated pilots for channel estimation or not for HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|--------------------------|-----------------------|
| UE Support Of Dedicated | | | ENUMERATED | |
| Pilots For Channel | | | (Dedicated | |
| Estimation Of HS-DSCH | | | pilots for | |
| | | | channel | |
| | | | estimation | |
| | | | supported) | |

9.2.2.51 UL/DL Compressed Mode Selection

Void

9.2.2.52 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|-----------------------|-----------------------|
| UL DPCCH Slot Format | | | INTEGER | |
| | | | (0.5.) | |

9.2.2.53 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------------|----------|-------|-----------------------------------|-----------------------|
| UL Scrambling Code Number | М | | INTEGER (0 2 ²⁴ -1) | |
| UL Scrambling Code Length | М | | ENUMERAT ED(Short, Long) | |

9.2.2.54 Uplink Delta SIR

Void

9.2.2.55 Uplink Delta SIR After

Void

9.2.2.56 DPC Mode Change Support Indicator

The DPC Mode Change Support Indicator IE indicates that the particular cell is capable to support DPC mode change.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|---------------------------|-----------------------|
| DPC Mode Change Support Indicator | | | ENUMERATTE D (DPC Mode | |
| | | | Change Supported) | |

9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

9.2.3.a Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

| resence | Range | IE Type and Reference | Semantics Description |
|---------|---------|---|-------------------------------|
| | | ENUMERAT ED(0, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8 | |
| | eserice | esence ivalige | Reference ENUMERAT ED(0, 1/8, |

9.2.3.A Block STTD Indicator

Void.

9.2.3.1 Burst Type

Void.

9.2.3.1a Cell Capability Container TDD

The Cell Capability Container TDD indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------------|----------|-------|-----------------------|--|
| Cell Capability Container TDD | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------------|----------|-------|--------------------------|--|
| Cell Capability Container TDD LCR | | | BIT STRING (32) | Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. |

9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| CCTrCH ID | | | INTEGER | |
| | | | (015) | |

9.2.3.2A DCH TDD Information

The $DCH\ TDD\ Information$ IE provides information for DCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------------|---------------|--|-----------------------------|---|-------------|-------------------------|
| DCH Information | | 1 <maxno< td=""><td></td><td></td><td>-</td><td></td></maxno<> | | | - | |
| | | ofDCHs> | | | | |
| >Payload CRC Presence | M | | 9.2.1.42 | | _ | |
| Indicator | | | | | | |
| >UL FP Mode | M | | 9.2.1.67 | | _ | |
| >ToAWS | M | | 9.2.1.58 | | _ | |
| >ToAWE | M | | 9.2.1.57 | | _ | |
| >DCH Specific Info | | 1 <maxno ofdchs=""></maxno> | | | _ | |
| >>DCH ID | М | | 9.2.1.16 | | _ | |
| >>CCTrCH ID | M | | 9.2.3.2 | UL CCTrCH in which the DCH is mapped | - | |
| >>CCTrCH ID | М | | 9.2.3.2 | DL CCTrCH in which the DCH is mapped | _ | |
| >>TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >>Transport Format Set | M | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | M | | 9.2.1.64 | For the DL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the UL. | _ | |
| >>BLER | M | | 9.2.1.4 | For the DL. | _ | |
| >>Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | M | | 9.2.1.29 | | _ | |
| >>QE-Selector | C- CoorDCH | | 9.2.1.46A | | _ | |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |
| >>Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >>Unidirectional DCH Indicator | 0 | | 9.2.1.68B | | YES | ignore |

| Explanation |
|--|
| The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the <i>DCH Specific Info</i> IE is greater than 1). |
| |

| Range bound | Explanation |
|-------------|------------------------------------|
| maxnoofDCHs | Maximum number of DCHs for one UE. |

9.2.3.2B DCH TDD Information Response

Void

9.2.3.2C DL Timeslot Information

The *DL Timeslot Information* IE provides information on the time slot allocation for a DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------------|----------|---------------------------------|---|--------------------------|-------------|-------------------------|
| DL Timeslot Information | | 1 <maxno OfTS></maxno | | | _ | |
| >Time Slot | M | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | М | | 9.2.3.4 | | _ | |
| >TFCI Presence | M | | 9.2.1.55 | | _ | |
| >DL Code Information | М | | TDD DL Code Information 9.2.3.8C | | _ | |

| Range bound | Explanation |
|-------------|---------------------------------------|
| maxnoofTSs | Maximum number of Timeslots for a UE. |

9.2.3.2D DL Time Slot ISCP Info

The DL Time Slot ISCP Info IE gives interference level for each DL time slot within the Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------|----------|-----------------------------------|-----------------------------|--------------------------|-------------|-------------------------|
| DL Time Slot ISCP Info | | 1 <maxno ofDLts></maxno | | | _ | |
| >Time Slot | М | | 9.2.1.56 | | _ | |
| >DL Timeslot ISCP | М | | 9.2.3.12 | | _ | |

| Range bound | Explanation |
|-------------|--|
| maxnoofDLts | Maximum number of downlink time slots per Radio Link for |
| | 3.84Mcps TDD. |

9.2.3.2E DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Timeslot to be established for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and | Semantics | Criticality | Assigned Criticality |
|-----------------------------|----------|---|--|--|-------------|----------------------|
| | | | Reference | Description | | Criticality |
| DL Timeslot Information LCR | | 1 <maxnoof DLtsLCR></maxnoof | | | I | |
| >Time Slot LCR | М | | 9.2.3.12a | | - | |
| >Midamble Shift LCR | М | | 9.2.3.4C | | - | |
| >TFCI Presence | M | | 9.2.1.57 | | _ | |
| >DL Code Information LCR | М | | TDD DL Code Information LCR 9.2.3.8D | | 1 | |
| >Maximum DL TX Power | 0 | | DL Power 9.2.1.21A | Maximum allowed power on DPCH | YES | ignore |
| >Minimum DL TX Power | 0 | | DL Power 9.2.1.21A | Minimum allowed power on DPCH | YES | ignore |

| Range bound | Explanation |
|----------------|--|
| maxnoofDLtSLCR | Maximum number of Downlink time slots per Radio Link for |
| | 1.28Mcps TDD. |

9.2.3.2F DL Time Slot ISCP Info LCR

The DL *Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-------------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| DL Time Slot ISCP Info LCR | | 1 <maxnooful tsLCR></maxnooful | | | _ | |
| >Time Slot LCR | M | | 9.2.3.12a | | _ | |
| >DL Timeslot ISCP | М | | 9.2.3.12 | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofULtsLCR | Maximum number of Uplink time slots per Radio Link for 1.28Mcps |
| | TDD |

9.2.3.3 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| DPCH ID | | | INTEGER | |
| | | | (0239) | |

9.2.3.3a DSCH TDD Information

The DSCH TDD Information IE provides information for DSCHs to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|------------------------------------|-----------------------------|---|-------------|-------------------------|
| DSCH TDD Information | | 1 <maxno ofDSCHs></maxno | | | _ | |
| >DSCH ID | M | | 9.2.1.26A | | _ | |
| >CCTrCH ID | M | | 9.2.3.2 | DL CCTrCH in which the DSCH is mapped. | _ | |
| >TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >Transport Format Set | M | | 9.2.1.64 | | _ | |
| >Allocation/Retention Priority | M | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >BLER | M | | 9.2.1.4 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |

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| Range bound | Explanation |
|--------------|-------------------------------------|
| maxnoofDSCHs | Maximum number of DSCHs for one UE. |

9.2.3.3aa HS-DSCH TDD Information

The HS-DSCH TDD Information IE provides information for HS-DSCH to be established.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|---|--|---|-------------|-------------------------|
| HS-DSCH MAC-d Flow Specific Information | | 1 <maxno ofMACdFI ows></maxno | | | _ | |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.300 | | _ | |
| >Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >Traffic Class | M | | 9.2.1.58A | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | - | |
| Priority Queue Information | | 1 <maxno ofPrioQue ues></maxno | | | - | |
| >Priority Queue ID | М | 4007 | 9.2.1.45A | | _ | |
| >Associated HS-DSCH MAC- d Flow | M | | HS-DSCH MAC-d Flow ID 9.2.1.300 | | - | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | | |
| >T1 | M | | 9.2.1.54A | | | |
| >Discard Timer | 0 | | 9.2.1.19C | | | |
| >MAC-hs Window Size | M | | 9.2.1.34C | | _ | |
| >MAC-hs Guaranteed Bit Rate | 0 | | 9.2.1.34Aa | | | |
| >MAC-d PDU Size Index | | 1 <maxno ofMACdP DUindexes ></maxno | | | | |
| >>SID | М | | 9.2.1.52D | | - | |
| >>MAC-d PDU Size | М | | 9.2.1.34A | | - | |
| UE Capabilities information | | 1 | | | - | |
| >HS-DSCH Physical Layer Category | М | | 9.2.1.30Oa | | _ | |
| >MAC-hs reordering buffer size | М | | 9.2.1.34Ab | | | |
| TDD ACK NACK Power Offset | М | | 9.2.3.71 | | _ | |

| Range bound | Explanation |
|-----------------------|--|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofPrioQueues | Maximum number of Priority Queues. |
| maxnoofMACdPDUindexes | Maximum number of MAC-d PDU Size Indexes |
| | (SIDs). |

9.2.3.3ab HS-DSCH TDD Information Response

The *HS-DSCH TDD Information Response* IE provides information for HS-DSCH that have been established or modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|---|--|-------------|-------------------------|
| HS-DSCH MAC -d Flow Specific Information Response | | 1 <maxno ofMACdFl ows></maxno | | | - | |
| >HS-DSCH MAC-d Flow ID | М | | 9.2.1.300 | | _ | |
| >Binding ID | 0 | | 9.2.1.3 | | _ | |
| >Transport Layer Address | 0 | | 9.2.1.62 | | _ | |
| >HS-DSCH Initial Capacity | 0 | | 9.2.1.30Na | | _ | |
| Allocation | | | | | | |
| HS-SCCH Specific Information Response | | 0 <maxno ofHSSCC Hcodes></maxno | | Mandatory for 3.84 Mcps TDD, not applicable to 1.28 Mcps TDD | _ | |
| >Time Slot | M | | 9.2.1.56 | | | |
| >Midamble Shift And Burst | М | | 9.2.3.4 | | | |
| Type | | | | | | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | | |
| >HS-SICH Information | | 1 | | | | |
| >>HS SICH ID | M | | 9.2.3.3ad | | | |
| >>Time Slot | M | | 9.2.1.56 | | | |
| >>Midamble Shift And Burst Type | М | | 9.2.3.4 | | | |
| >>TDD Channelisation Code | М | | 9.2.3.8 | | | |
| HS-SCCH Specific Information Response LCR | | 0 <maxno ofHSSCC Hcodes></maxno | | Mandatory for 1.28 Mcps TDD, not applicable to 3.84 Mcps TDD | _ | |
| >Time Slot LCR | M | | 9.2.3.12a | | | |
| >Midamble shift LCR | M | | 9.2.3.4C | | | |
| >First TDD Channelisation Code | M | | TDD Channelisa tion Code 9.2.3.8 | | | |
| >Second TDD Channelisation Code | M | | TDD Channelisa tion Code 9.2.3.8 | | | |
| >HS-SICH Information LCR | | 1 | | | | |
| >>HS SICH ID | M | | 9.2.3.3ad | | | |
| >>Time Slot LCR | M | | 9.2.3.12a | | | |
| >>Midamble shift LCR >>TDD Channelisation Code | M M | | 9.2.3.4C 9.2.3.8 | | | |
| HS-PDSCH Timeslot Specific Information Response | | 0 <maxno ofDLts></maxno | | Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD. | _ | |
| >Time Slot | М | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | - | |
| HS-PDSCH Timeslot Specific Information Response LCR | | 0 <maxno ofDLtsLCR ></maxno | | Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD. | - | |

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|-------------------------|----------|--|----------------|--------------------------|-------------|----------------------|
| | | | Reference | 2 cccpc | | Criticality |
| >Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | _ | |
| CHOICE HARQ Memory | M | | | | _ | |
| Partitioning | | | | | | |
| >Implicit | | | | | _ | |
| >>Number of Processes | M | | INTEGER | | _ | |
| | | | (18) | | | |
| >Explicit | | | | | _ | |
| >>HARQ Memory | | 1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<> | | | _ | |
| Partitioning Infomation | | ofHARQpr | | | | |
| | | ocesses> | | | | |
| >>>Process Memory Size | M | | 9.2.1.45B | See [16] | _ | |

| Range bound | Explanation |
|----------------------|--|
| maxnoofMACdFlows | Maximum number of MAC-d flows. |
| maxnoofHSSCCHcodes | Maximum number of HS-SCCH codes. |
| maxnoofDLts | Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD. |
| maxnoofDLtsLCR | Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD. |
| maxnoofHARQprocesses | Maximum number of HARQ processes. |

9.2.3.3ac HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|-------------------------------|----------|-------|-----------------------------|-------------------------|-------------|-------------------------|
| HS-SCCH Code Change Indicator | 0 | | 9.2.1.30R | | _ | |
| TDD ACK NACK Power Offset | 0 | | 9.2.3.71 | | _ | |

9.2.3.3ad HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| HS SICH ID | | | INTEGER (031) | |

9.2.3.3A Maximum Number of Timeslots

Defines the maximum number of timeslots the UE has the capability of receiving or transmitting. [3.84Mcps TDD – in a frame] [1.28Mcps TDD – in a subframe]

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|--------------------------|-------------------------------|
| Maximum Number of | | | INTEGER | For 1.28Mcps TDD the values 7 |
| Timeslots | | | (114) | through 14 are not used. |

9.2.3.3B Maximum Number of UL Physical Channels per Timeslot

Defines the maximum number of physical channels [3.84Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to transmit.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Maximum Number of UL | | | INTEGER | |
| Physical Channels per | | | (12) | |
| Timeslot | | | | |

9.2.3.3C Maximum Number of DL Physical Channels

Defines the maximum number of physical channels [3.84Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|------------------------------|
| Maximum Number of DL | | | INTEGER | For 1.28Mcps TDD the values |
| Physical Channels | | | (1224) | 97 through 224 are not used. |

9.2.3.3D Maximum Number of DL Physical Channels per Timeslot

Defines the maximum number of physical channels per timeslot that the UE is capable to receive.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| Maximum Number of DL | | | INTEGER | |
| Physical Channels per | | | (116) | |
| Timeslot | | | | |

9.2.3.4 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|---------------------------------|--------------------------|
| CHOICE Burst Type | | | | |
| >Type 1 | | | | |
| >> Midamble | M | | ENUMERATED(4, 8, | As defined in [12] |
| Configuration Burst | | | 16) | |
| Type 1 And 3 | | | | |
| >>Midamble | M | | ENUMERATED(Defa | |
| Allocation Mode | | | ult midamble, | |
| | | | Common midamble, UE specific | |
| | | | midamble) | |
| >>Midamble Shift | C-UE | | INTEGER(015) | |
| Long | | | 114120214(010) | |
| >Type 2 | | | | |
| >> Midamble | M | | ENUMERATED (3, 6) | As defined in [12] |
| Configuration Burst | | | | |
| Type 2 | | | | |
| >>Midamble | M | | ENUMERATED(Defa | |
| Allocation Mode | | | ult midamble, | |
| | | | Common midamble, | |
| | | | UE specific midamble) | |
| >>Midamble Shift | | | INTEGER | |
| Short | | | (015) | |
| >Type 3 | | | (00) | UL only |
| >> Midamble | М | | ENUMERATED (4, 8, | As defined in [12] |
| Configuration Burst | | | 16) | |
| Type 1 And 3 | | | | |
| >>Midamble | M | | ENUMERATED(Defa | |
| Allocation Mode | | | ult midamble, UE | |
| 10000 | 0.115 | | specific midamble) | |
| >>Midamble Shift | C-UE | | INTEGER(015) | |
| Long | | | | |

| Condition | Explanation |
|-----------|--|
| UE | The IE shall be present if the Midamble Allocation |
| | Mode IE is set to "UE-specific midamble". |

9.2.3.4A Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|-----------------------|-----------------------|
| Minimum Spreading | | | INTEGER | |
| Factor | | | (116) | |

9.2.3.4B IPDL TDD parameters

The IPDL TDD Parameters IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|--|-----------------------|
| IP Spacing TDD | M | | ENUMERAT ED(30,40,50 , 70, 100,) | See [22] |
| IP Start | М | | INTEGER(0. .4095) | See [22] |
| IP Slot | M | | INTEGER(014) | See [22] |
| IP P-CCPCH | М | | ENUMERAT ED(Switch off 1 frame, Switch off 2 frames) | See [22] |
| Burst mode parameters | 0 | | 9.2.1.4B | |

9.2.3.4Bb IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| IP Spacing TDD | М | | ENUMERAT | See [22] |
| | | | ED(30,40,50 | |
| | | | , 70, 100,) | |
| IP Start | М | | INTEGER(0. | See [22] |
| | | | .4095) | |
| IP_Sub | М | | ENUMERAT | See [22] |
| | | | ED(First,Sec | |
| | | | ond,Both) | |
| Burst mode parameters | 0 | | 9.2.1.4B | |

9.2.3.4C Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

| IE/Group name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------------|----------|-------|-----------------------|-----------------------|
| Midamble Allocation Mode | M | | ENUMERAT | |
| | | | ED(Default | |
| | | | midamble, | |
| | | | Common | |
| | | | midamble, | |
| | | | UE specific | |
| | | | midamble,) | |
| Midamble Shift Long | C-UE | | INTEGER(0. | |
| | | | .15) | |
| Midamble Configuration LCR | M | | ENUMERAT | As defined in [12] |
| | | | ED (2, 4, 6, | _ - |
| | | | 8, 10, 12, 14, | |
| | | | 16,) | |

| Condition | Explanation |
|-----------|--|
| UE | The IE shall be present if the Midamble Allocation |
| | Mode IE is set to "UE-specific midamble". |

9.2.3.4D Neighbouring TDD Cell Information LCR

Void

9.2.3.5 Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------|----------|-------|--------------------------|----------------------------|
| Primary CCPCH RSCP | | | INTEGER(| According to mapping in in |
| | | | 091) | ref. [14]. |

9.2.3.5A PRACH Midamble

Void.

9.2.3.5B RB Identity

The RB Identity is the identifier of a radio bearer. It is unique for each active Radio bearer among the active radio bearers simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|------------------------|
| RB Identity | | | INTEGER | In line with [16], ch. |
| | | | (031) | 10.3.4.11 |

9.2.3.6 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------|----------|-------|--------------------------|-----------------------|
| Repetition Length | | | INTEGER(163 | |

9.2.3.7 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J, it is assigned to the same physical channel also in all the Radio Frames J+n*Repetition Period (where n is an integer) see ref. [16].

| IE/Group Name | Presence | Range | IE Type and | Semantics Description |
|-------------------|----------|-------|------------------|-----------------------|
| | | | Reference | |
| Repetition Period | | | ENUMERATED | |
| | | | (1,2,4,8,16,32,6 | |
| | | | 4) | |

9.2.3.7A Rx Timing Deviation

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. For 1.28Mcps TDD this IE must be set to 0.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------|----------|-------|--------------------------|----------------------------------|
| Rx Timing Deviation | | | INTEGER (0127) | As specified in [5], ch. 6.2.7.6 |

9.2.3.7B Secondary CCPCH Info TDD

The *Secondary CCPCH Info TDD* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TFCS | M | | 9.2.1.63 | For the DL. | _ | |
| TFCI Coding | M | | 9.2.3.11 | | _ | |
| Secondary CCPCH | | 0 <maxno ofSCCPC Hs></maxno | | | - | |
| >Time Slot | M | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | _ | |
| >TFCI Presence | M | | 9.2.1.55 | | _ | |
| > Secondary CCPCH TDD Code Information | M | | 9.2.3.7C | | _ | |
| >TDD Physical Channel Offset | M | | 9.2.3.9 | | | |
| >Repetition Length | M | | 9.2.3.6 | | _ | |
| >Repetition Period | M | | 9.2.3.7 | | _ | |
| FACH | | 0maxnoo fFACHs | | | _ | |
| > TFS | M | | 9.2.1.64 | For the DL. | _ | |
| PCH | | 01 | | | _ | |
| > TFS | М | | 9.2.1.64 | For the DL. | _ | |

| Range bound | Explanation |
|----------------|--|
| maxnoofSCCPCHs | Maximum number of Secondary CCPCHs per CCTrCH. |
| maxnoofFACHs | Maximum number of FACHs mapped onto a Secondary CCPCH. |

9.2.3.7C Secondary CCPCH TDD Code Information

The Secondary CCPCH TDD Code Information IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| Secondary CCPCH TDD Code Information | | 1 <maxno OfSCCPC Hs></maxno | | | _ | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofSCCPCHs | Maximum number of SCCPCHs for one CCTrCH. |

9.2.3.7D Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|------------------------|---|
| Special Burst Scheduling | | | INTEGER(1, 2,, 256) | Number of frames between special burst transmissions during DTX |

9.2.3.7E Synchronisation Configuration

The Synchronisation Configuration parameters that are used by the DRNS in the Radio Link Failure/Restore procedure.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|---------------------------------------|-----------------------|
| N_INSYNC_IND | М | | <i>INTEGE</i> R(1, 2,, 256) | |
| N_OUTSYNC_IND | М | | INTEGER(1, 2,, 256) | |
| T_RLFAILURE | М | | ENUMERAT ED(0, 0.1, 0.2,, 25.5) | Unit: seconds |

9.2.3.7F Secondary CCPCH Info TDD LCR

The *Secondary CCPCH Info TDD LCR* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TFCS | М | | 9.2.1.63 | For the DL. | _ | |
| TFCI Coding | М | | 9.2.3.11 | | _ | |
| Secondary CCPCH | | 0 <maxno ofSCCPC Hs></maxno | | | - | |
| >Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >Midamble Shift LCR | M | | 9.2.3.4C | | _ | |
| >TFCI Presence | М | | 9.2.1.55 | | _ | |
| > Secondary CCPCH TDD Code Information LCR | М | | 9.2.3.7G | | _ | |
| >TDD Physical Channel Offset | М | | 9.2.3.9 | | | |
| >Repetition Length | М | | 9.2.3.6 | | _ | |
| >Repetition Period | M | | 9.2.3.7 | | _ | |
| FACH | | 0 <maxno ofFACHs></maxno | | | _ | |
| > TFS | М | | 9.2.1.64 | For the DL. | _ | |
| PCH | | 01 | | | _ | |
| > TFS | M | | 9.2.1.64 | For the DL. | _ | |

| Range bound | Explanation |
|----------------|--|
| maxnoofSCCPCHs | Maximum number of Secondary CCPCHs per CCTrCH. |
| maxnoofFACHs | Maximum number of FACHs mapped onto a Secondary CCPCH. |

9.2.3.7G Secondary CCPCH TDD Code Information LCR

The *Secondary CCPCH TDD Code Information LCR* IE provides LCR TDD Channelisation Code information for all SCCPCHs of one Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|----------|---|--|--------------------------|-------------|-------------------------|
| Secondary CCPCH TDD Code Information | | 1 <maxno OfSCCPC Hs></maxno | | | I | |
| >TDD Channelisation Code LCR | M | | 9.2.3.8a | | ı | |
| >SCCPCH Time Slot Format LCR | М | | TDD DL DPCH Time Slot Format LCR 9.2.3.8E | | - | |

| Range bound | Explanation |
|----------------|---|
| maxnoofSCCPCHs | Maximum number of SCCPCHs for one CCTrCH. |

9.2.3.7H Support of 8PSK

The Support of 8PSK IE indicates whether 8PSK is supported or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------|----------|-------|-----------------------|-----------------------|
| Support of 8PSK | | | ENUMERAT | |
| | | | ED(supported | |
| | | |) | |

9.2.3.7I TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [16].

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--------------------|----------|-------|-----------------------|-----------------------|
| TDD ACK NACK Power | | | INTEGER (- | Unit: dB |
| Offset | | | 78,) | Range: -7+8 dB |
| | | | | Step: 1 dB |

9.2.3.8 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8 or 16.

| Presence | Range | IE Type and Reference | Semantics Description |
|----------|----------|---|--|
| | | ENUMERATED ((1/1), (2/1), (2/2), (4/1), (4/4), (8/1), (8/8), (16/1) | |
| | Presence | Presence Kange | Reference ENUMERATED ((1/1), (2/1), (2/2), (4/1), |

9.2.3.8a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|---------------------------------------|--------------------------|-----------------------------|
| TDD Channelisation Code | M | | ENUMERAT | |
| | | | ED((1/1), | |
| | | | (2/1), (2/2), | |
| | | | (4/1),(4/4), | |
| | | | (8/1), (8/8), | |
| | | | (16/1) | |
| | | | (16/16) ,) | |
| Modulation | М | · · · · · · · · · · · · · · · · · · · | ENUMERAT | Modulation options for |
| | | | ED(QPSK, | 1.28Mcps TDD in contrast to |
| | | | 8PSK,) | 3.84Mcps TDD |

9.2.3.8A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The first range is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The second range is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offset for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-------------------------|----------|-------|-----------------------|-----------------------|
| | | | | |
| CHOICE Offset Type | | | | |
| >Initial Offset | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER | |
| | | | (0255) | |
| >No Initial Offset | | | | |
| >>TDD DPCH Offset Value | M | | INTEGER | |
| | | | (063) | |

9.2.3.8B TDD DCHs To Modify

The TDD DCHs To Modify IE provides information for DCHs to be modified.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--|----------|-----------------------------------|-----------------------------|--|-------------|-------------------------|
| TDD DCHs To Modify | | 1 <maxno ofDCHs></maxno | | | - | |
| >UL FP Mode | 0 | | 9.2.1.67 | | _ | |
| >ToAWS | 0 | | 9.2.1.58 | | _ | |
| >ToAWE | 0 | | 9.2.1.57 | | _ | |
| >Transport Bearer Request Indicator | М | | 9.2.1.61 | | _ | |
| >DCH Specific Info | | 1 <maxno ofDCHs></maxno | | | _ | |
| >>DCH ID | M | | 9.2.1.16 | | _ | |
| >>CCTrCH ID | 0 | | 9.2.3.2 | UL CCTrCH in which the DCH is mapped. | _ | |
| >>CCTrCH ID | 0 | | 9.2.3.2 | DL CCTrCH in which the DCH is mapped | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the UL. | _ | |
| >>Transport Format Set | 0 | | 9.2.1.64 | For the DL. | _ | |
| >>Allocation/Retention Priority | 0 | | 9.2.1.1 | | _ | |
| >>Frame Handling Priority | 0 | | 9.2.1.29 | | _ | |
| >>Traffic Class | 0 | | 9.2.1.58A | | YES | ignore |
| >>Guaranteed Rate Information | 0 | | 9.2.1.30M | | YES | ignore |

| Range bound | Explanation | | |
|-------------|------------------------------------|--|--|
| maxnoofDCHs | Maximum number of DCHs for one UE. | | |

9.2.3.8C TDD DL Code Information

The TDD DL Code Information IE provides TDD DL Code information for all DPCHs of one DL Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TDD DL Code Information | | 1 <maxno OfDPCHs ></maxno | | | _ | |
| >DPCH ID | М | | 9.2.3.3 | | _ | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | _ | |

| Range bound | Explanation | | | |
|--------------|---|--|--|--|
| maxnoofDPCHs | Maximum number of DPCHs for one CCTrCH. | | | |

9.2.3.8D TDD DL Code Information LCR

The TDD DL Code Information LCR IE provides DL Code information for the RL for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|----------|--|-----------------------------|--------------------------|-------------|-------------------------|
| TDD DL Code Information LCR | | 1 <maxnoof DPCHLCR ></maxnoof | | | - | |
| >DPCH ID | M | | 9.2.3.5 | | _ | |
| >TDD Channelisation Code LCR | М | | 9.2.3.8a | | _ | |
| > TDD DL DPCH Time Slot Format LCR | М | | 9.2.3.8E | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoOfDPCHLCR | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD |

9.2.3.8E TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [12]).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------------|----------|-------|-----------------------|-----------------------|
| CHOICE Modulation | | | | |
| > QPSK | | | | |
| >>QPSK TDD DL DPCH | M | | INTEGER | |
| TimeSlot Format LCR | | | (024,) | |
| > 8PSK | | | | |
| >>8PSK TDD DL DPCH | M | | INTEGER | |
| TimeSlot Format LCR | | | (024,) | |

9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a non DPCH physical channel. (CFN mod Repetition Period = TDD Physical Channel Offset) see ref. [16].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------------|----------|-------|--------------------------|-----------------------|
| TDD Physical Channel | | | INTEGER | |
| Offset | | | (063) | |

9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment (see ref [22]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------|----------|-------|-----------------------|-----------------------|
| TDD TPC Downlink Step | | | ENUMERAT | Unit: dB |
| Size | | | ED(1, 2, 3,) | |

9.2.3.10a TDD TPC Uplink Step Size

This parameter indicates step size for the UL power adjustment (see ref [22]).

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|--------------------------|----------|-------|-----------------------|-----------------------|
| TDD TPC Uplink Step Size | | | ENUMERAT | Unit: dB |
| | | | ED | |
| | | | (1, 2, 3,) | |

9.2.3.10A TDD UL Code Information

The TDD UL Code Information IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TDD UL Code Information | | 1 <maxno OfDPCHs ></maxno | | | _ | |
| >DPCH ID | M | | 9.2.3.3 | | _ | |
| >TDD Channelisation Code | M | | 9.2.3.8 | | _ | |

| Range bound | Explanation |
|--------------|---|
| maxnoofDPCHs | Maximum number of DPCHs for one CCTrCH. |

9.2.3.10B TDD UL Code Information LCR

The TDD UL Code Information LCR IE provides information for UL Code to be established for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| TDD UL Code Information | | 1 | | | - | |
| LCR | | <maxno< td=""><td></td><td></td><td></td><td></td></maxno<> | | | | |
| | | OfDPCH | | | | |
| | | LCR> | | | | |
| >DPCH ID | M | | 9.2.3.5 | | _ | |
| >TDD Channelisation Code | M | | 9.2.3.8a | | _ | |
| LCR | | | | | | |
| > TDD UL DPCH Time Slot | М | | 9.2.3.10C | | - | |
| Format LCR | | | | | | |

| Range bound | Explanation |
|----------------|--|
| maxnoOfDPCHLCR | Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD. |

9.2.3.10C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [12]).

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|----------------------|----------|-------|-----------------------|-----------------------|
| CHOICE Modulation | | | | |
| > QPSK | | | | |
| >>QPSK TDD UL DPCH | М | | INTEGER | |
| Time Slot Format LCR | | | (069,) | |
| > 8PSK | | | | |
| >>8PSK TDD UL DPCH | М | | INTEGER | |
| Time Slot Format LCR | | | (024,) | |

9.2.3.11 TFCI Coding

The TFCI Coding describes how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|--------------------------|-----------------------|
| TFCI Coding | | | ENUMERATE | |
| | | | D(4, 8, 16, | |
| | | | 32,) | ļ |

9.2.3.12 DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|--------------------------|-------------------------------|
| DL Timeslot ISCP | | | INTEGER(091) | According to mapping in [24]. |

9.2.3.12a Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| Time Slot LCR | | | INTEGER | |
| | | | (06) | |

9.2.3.12A Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|-----------------------|-----------------------|
| Timing Advance Applied | | | ENUMERAT | |
| | | | ED(Yes, No) | |

9.2.3.13 Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|-----------------------|
| Transport Format | | | ENUMERAT | |
| Management | | | ED(Cell | |
| | | | Based, UE | |
| | | | Based,) | |

9.2.3.13A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the DRNS, see ref. [14].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------|----------|-------|-----------------------|-------------------------------|
| UL Timeslot ISCP | | | INTEGER(| According to mapping in [24]. |
| | | | 0127) | |

9.2.3.13B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|--|-----------------------|
| UL PhysCH SF Variation | | | ENUMERAT ED(SF_Vari ation_suppor ted, SF_Variation | |
| | | | _NOT_supp orted) | |

9.2.3.13C UL Timeslot Information

The UL Timeslot Information IE provides information on the time slot allocation for a UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|--------------------------------|----------|---------------------------------|--|--------------------------|-------------|-------------------------|
| UL Timeslot Information | | 1 <maxno OfTS></maxno | | | _ | |
| >Time Slot | M | | 9.2.1.56 | | _ | |
| >Midamble Shift And Burst Type | M | | 9.2.3.4 | | _ | |
| >TFCI Presence | M | | 9.2.1.55 | | _ | |
| >UL Code Information | M | | TDD UL Code Information 9.2.3.10A | | _ | |

| Range bound | Explanation |
|-------------|---------------------------------------|
| maxnoofTSs | Maximum number of Timeslots for a UE. |

9.2.3.13D UL Time Slot ISCP Info

The $UL\ Time\ Slot\ ISCP\ Info\ IE\ gives\ interference\ level\ for\ each\ UL\ time\ slot\ within\ the\ Radio\ Link.$

| IE/Group Name | Presence | Range | IE Type and | Semantics Description | Criticality | Assigned Criticality |
|------------------------|----------|---|----------------|--------------------------|-------------|----------------------|
| | | | Reference | 2 ccc. ipiicii | | Citiounty |
| UL Time Slot ISCP Info | | 1 | | | _ | |
| | | <maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<> | | | | |
| | | ULts> | | | | |
| >Time Slot | M | | 9.2.1.56 | | _ | |
| >UL Timeslot ISCP | M | | 9.2.3.13A | | _ | |

| Range bound | Explanation |
|-------------|---|
| maxnoofULts | Maximum number of uplink time slots per Radio Link. |

9.2.3.13E TSTD Indicator

Indicates if TSTD shall be active or not for the DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|----------------|----------|-------|-----------------------|-----------------------|
| TSTD Indicator | | | ENUMERAT | |
| | | | ED(active, | |
| | | | inactive) | |

9.2.3.13F TSTD Support Indicator

Indicates if UE support TSTD or not for DL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|---|-----------------------|
| TSTD Support Indicator | | | ENUMERAT ED(TSTD supported, TSTD not supported) | |

9.2.3.13G UL Timeslot Information LCR

The UL Timeslot Information LCR IE provides information on the timeslot allocation for an UL DPCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|-----------------------------|----------|---|---|--------------------------|-------------|-------------------------|
| UL Timeslot Information LCR | | 1 <maxn oofULts LCR></maxn | | | _ | |
| >Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >Midamble Shift LCR | М | | 9.2.3.4C | | _ | |
| >TFCI Presence | М | | 9.2.1.57 | | _ | |
| >UL Code Information LCR | M | | TDD UL Code Information LCR 9.2.3.10B | | | |

| Range bound | Explanation |
|----------------|---|
| maxnoofULtsLCR | Maximum number of Uplink time slots per Radio Link for 1.28Mcps |
| | TDD. |

9.2.3.13H UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|------------------------|----------|---|-----------------------------|--------------------------|-------------|-------------------------|
| UL Time Slot ISCP Info | | 1 <maxnooful tsLCR></maxnooful | | | _ | |
| >Time Slot LCR | М | | 9.2.3.12a | | _ | |
| >UL Timeslot ISCP | М | | 9.2.3.26A | | _ | |

| Range bound | Explanation |
|----------------|---|
| maxnoofULtsLCR | Maximum number of Uplink time slots per Radio Link for 1.28Mcps |
| | TDD |

9.2.3.13I Uplink Synchronisation Frequency

The UL Synchronisation Frequency IE specifies the frequency of the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|------------------------|----------|-------|--------------------------|-------------------------|
| Uplink synchronisation | | | INTEGER (18) | Unit: subframe, step: 1 |
| frequency | | | | |

9.2.3.13J Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|-----------------------------|----------|-------|--------------------------|--------------------------|
| Uplink synchronisation step | | | INTEGER (18) | Unit: 1/8 chip, step: 1. |
| size | | | | |

9.2.3.13K Uplink Timing Advance Control LCR

The Uplink Timing Advance Control LCR indicates the parameters which are used to support Uplink Synchronisation for the UE in 1.28Mcps TDD.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------------------------|----------|-------|--------------------------|--|
| SYNC UL codes bitmap | М | | BITSTRING (8) | Each bit indicates the availability of a SYNC_UL code. |
| FPACH info | | 1 | | |
| >Time Slot LCR | M | | 9.2.3.12a | |
| >TDD Channelisation Code LCR | М | | 9.2.3.8a | |
| >Midamble Shift LCR | M | | 9.2.3.4C | |
| >WT | M | | INTEGER (14) | Maximum number of subframes to wait for transmission of FPACH. |
| PRXupPCHdes | M | | INTEGER (-120 – 58,) | Desired UpPCH receive power. Unit: dBm Step size: 1 |
| SYNC UL procedure parameters | | 1 | | |
| >Maximum Sync UL transmissions | М | | ENUMERATED (1,2,4,8,) | |
| >Power Ramp Step | M | | INTEGER (03,) | |
| Mmax | М | | INTEGER (132) | Maximum number of synchronisation attempts |

9.2.3.14 USCH ID

The USCH ID is the identifier of an uplink shared channel. It is unique among the USCHs simultaneously allocated for the same UE.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---------------|----------|-------|-----------------------|-----------------------|
| USCH ID | | | INTEGER | |
| | | | (0255) | |

9.2.3.15 USCH Information

The USCH Information IE provides information for USCHs to be established.

| IE/Group Name | Presenc e | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---------------------------------------|--------------|---|-----------------------------|---|-------------|-------------------------|
| USCH Information | | 1 to <maxnoofu SCHs></maxnoofu | | | - | |
| >USCH ID | M | | 9.2.3.14 | | _ | |
| >CCTrCH ID | M | | 9.2.3.2 | UL CCTrCH in which the USCH is mapped | _ | |
| >TrCH Source Statistics Descriptor | М | | 9.2.1.65 | | _ | |
| >Transport Format Set | М | | 9.2.1.64 | For USCH | _ | |
| >Allocation/Retention Priority | М | | 9.2.1.1 | | _ | |
| >Scheduling Priority Indicator | М | | 9.2.1.51A | | _ | |
| >BLER | M | | 9.2.1.4 | | | |
| >RB Info | | 1 <maxnoof RB></maxnoof | | All Radio Bearers using this USCH | _ | |
| >>RB Identity | M | | 9.2.3.5B | | _ | |
| >Traffic class | M | | 9.2.1.58A | | YES | ignore |
| >Binding ID | 0 | | 9.2.1.3 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |
| >Transport Layer Address | 0 | | 9.2.1.62 | Shall be ignored if bearer establishme nt with ALCAP. | YES | ignore |

| Range bound | Explanation |
|--------------|---|
| maxnoofUSCHs | Maximum number of USCHs for one UE. |
| maxnoofRBs | Maximum number of Radio Bearers for one UE. |

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of RNSAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclause 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of RNSAP messages. RNSAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a RNSAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list in which the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a RNSAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

9.3.1 Usage of Private Message Mechanism for Non-standard Use

The private message mechanism for non-standard use may be used:

- for special operator (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multivendor inter-operability.
- by vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 Elementary Procedure Definitions

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```
__ *******************
RNSAP-PDU-Descriptions {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Descriptions (0) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
      *****
-- IE parameter types from other modules.
__ ********************
IMPORTS
   Criticality,
   ProcedureID,
   TransactionID
FROM RNSAP-CommonDataTypes
   CommonMeasurementFailureIndication,
   CommonMeasurementInitiationFailure,
   CommonMeasurementInitiationRequest,
   CommonMeasurementInitiationResponse,
   CommonMeasurementReport,
   CommonMeasurementTerminationRequest,
   CommonTransportChannelResourcesFailure,
   CommonTransportChannelResourcesRequest,
   CommonTransportChannelResourcesReleaseRequest,
   CommonTransportChannelResourcesResponseFDD,
   CommonTransportChannelResourcesResponseTDD,
   CompressedModeCommand,
   DedicatedMeasurementFailureIndication,
   DedicatedMeasurementInitiationFailure,
   DedicatedMeasurementInitiationRequest,
   DedicatedMeasurementInitiationResponse,
   DedicatedMeasurementReport,
   DedicatedMeasurementTerminationRequest,
   DL-PowerControlRequest,
   DL-PowerTimeslotControlRequest,
   DownlinkSignallingTransferRequest,
   ErrorIndication,
   InformationExchangeFailureIndication,
   InformationExchangeInitiationFailure,
   InformationExchangeInitiationRequest,
   InformationExchangeInitiationResponse,
   InformationExchangeTerminationRequest,
   InformationReport,
   PagingRequest,
```

```
PhysicalChannelReconfigurationCommand,
    PhysicalChannelReconfigurationFailure,
    PhysicalChannelReconfigurationRequestFDD,
    PhysicalChannelReconfigurationRequestTDD,
    PrivateMessage,
    RadioLinkActivationCommandFDD,
    RadioLinkActivationCommandTDD,
   RadioLinkAdditionFailureFDD,
    RadioLinkAdditionFailureTDD,
   RadioLinkAdditionRequestFDD,
   RadioLinkAdditionRequestTDD,
   RadioLinkAdditionResponseFDD,
   RadioLinkAdditionResponseTDD,
    RadioLinkCongestionIndication,
   RadioLinkDeletionRequest,
   RadioLinkDeletionResponse,
   RadioLinkFailureIndication,
   RadioLinkParameterUpdateIndicationFDD,
   RadioLinkParameterUpdateIndicationTDD,
   RadioLinkPreemptionRequiredIndication,
   RadioLinkReconfigurationCancel,
   RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationFailure,
   RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
   RadioLinkReconfigurationReadyFDD,
    RadioLinkReconfigurationReadyTDD,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponseFDD,
   RadioLinkReconfigurationResponseTDD,
    RadioLinkRestoreIndication,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
   RelocationCommit,
   ResetRequest,
    ResetResponse,
   UplinkSignallingTransferIndicationFDD,
   UplinkSignallingTransferIndicationTDD,
    GERANUplinkSignallingTransferIndication
FROM RNSAP-PDU-Contents
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReporting,
    id-commonMeasurementTermination,
    id-commonTransportChannelResourcesInitialisation,
```

```
id-commonTransportChannelResourcesRelease,
    id-compressedModeCommand,
    id-downlinkPowerControl,
    id-downlinkSignallingTransfer,
    id-downlinkPowerTimeslotControl,
    id-errorIndication,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation.
    id-dedicatedMeasurementReporting,
    id-dedicatedMeasurementTermination,
    id-paging,
    id-physicalChannelReconfiguration,
    id-privateMessage,
    id-radioLinkActivation,
    id-radioLinkAddition,
    id-radioLinkCongestion,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkParameterUpdate,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-relocationCommit,
    id-reset,
    id-synchronisedRadioLinkReconfigurationCancellation,
    id-synchronisedRadioLinkReconfigurationCommit,
    id-synchronisedRadioLinkReconfigurationPreparation,
    id-unSynchronisedRadioLinkReconfiguration,
    id-uplinkSignallingTransfer,
    id-gERANuplinkSignallingTransfer
FROM RNSAP-Constants;
      -- Interface Elementary Procedure Class
__ ***********************
RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
   &InitiatingMessage
   &SuccessfulOutcome
                                  OPTIONAL,
   &UnsuccessfulOutcome
                                     OPTIONAL,
   &Outcome
                              OPTIONAL,
   &procedureID
                          ProcedureID
                                         UNIQUE,
    &criticality
                          Criticality
                                         DEFAULT ignore
WITH SYNTAX {
```

```
INITIATING MESSAGE
                         &InitiatingMessage
    [SUCCESSFUL OUTCOME
                          &SuccessfulOutcome1
    [UNSUCCESSFUL OUTCOME
                             &UnsuccessfulOutcome |
    OUTCOME
                     &Outcome1
   PROCEDURE ID
                          &procedureID
                         &criticality]
    [CRITICALITY
     -- Interface PDU Definition
__ ********************
RNSAP-PDU ::= CHOICE {
   initiatingMessage InitiatingMessage,
   successfulOutcome SuccessfulOutcome,
   unsuccessfulOutcome UnsuccessfulOutcome,
   outcome
                  Outcome,
InitiatingMessage ::= SEOUENCE {
                                                       ({RNSAP-ELEMENTARY-PROCEDURES}),
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
   transactionID TransactionID,
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   value
              RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage
SuccessfulOutcome ::= SEOUENCE {
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   transactionID TransactionID,
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   value
              RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome
UnsuccessfulOutcome ::= SEOUENCE {
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                       ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                       ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
   transactionID TransactionID,
              RNSAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   value
Outcome ::= SEOUENCE {
   procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                       ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                        ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
   transactionID TransactionID,
   value
              RNSAP-ELEMENTARY-PROCEDURE. & Outcome
                                                    ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
   ************
```

```
-- Interface Elementary Procedure List
  *****************
RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
   RNSAP-ELEMENTARY-PROCEDURES-CLASS-1
   RNSAP-ELEMENTARY-PROCEDURES-CLASS-2
   RNSAP-ELEMENTARY-PROCEDURES-CLASS-3
RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
   radioLinkSetupFDD
   radioLinkSetupTDD
   radioLinkAdditionFDD
   radioLinkAdditionTDD
   radioLinkDeletion
    synchronisedRadioLinkReconfigurationPreparationFDD
    synchronisedRadioLinkReconfigurationPreparationTDD
   un Synchronised Radio Link Reconfiguration FDD\\
    unSynchronisedRadioLinkReconfigurationTDD
   physicalChannelReconfigurationFDD
    physicalChannelReconfigurationTDD
    dedicatedMeasurementInitiation
    commonTransportChannelResourcesInitialisationFDD
    \verb|commonTransportChannelResourcesInitialisationTDD| \\
    . . . ,
    commonMeasurementInitiation
    informationExchangeInitiation
    reset
RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
   uplinkSignallingTransferFDD
   uplinkSignallingTransferTDD
   downlinkSignallingTransfer
    relocationCommit
   paging
    synchronisedRadioLinkReconfigurationCommit
    synchronisedRadioLinkReconfigurationCancellation
    radioLinkFailure
   radioLinkPreemption
   radioLinkRestoration
    dedicatedMeasurementReporting
    dedicatedMeasurementTermination
    dedicatedMeasurementFailure
    downlinkPowerControlFDD
    downlinkPowerTimeslotControl
    compressedModeCommandFDD
    commonTransportChannelResourcesRelease
```

```
errorIndication
   privateMessage
   . . . .
   radioLinkCongestion
   commonMeasurementFailure
   commonMeasurementReporting
   commonMeasurementTermination
   informationExchangeFailure
   informationExchangeTermination
   informationReporting
   radioLinkActivationFDD
   radioLinkActivationTDD
   gERANuplinkSignallingTransfer
   radioLinkParameterUpdateFDD
   radioLinkParameterUpdateTDD
RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
     *****************
-- Interface Elementary Procedures
  radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkSetupRequestFDD
   SUCCESSFUL OUTCOME RadioLinkSetupResponseFDD
   UNSUCCESSFUL OUTCOME
                         RadioLinkSetupFailureFDD
   PROCEDURE ID
                      { procedureCode id-radioLinkSetup, ddMode fdd }
   CRITICALITY
                  reject
radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkSetupRequestTDD
   SUCCESSFUL OUTCOME RadioLinkSetupResponseTDD
                         RadioLinkSetupFailureTDD
   UNSUCCESSFUL OUTCOME
   PROCEDURE ID
                      { procedureCode id-radioLinkSetup, ddMode tdd }
   CRITICALITY
                  reject
radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkAdditionRequestFDD
   SUCCESSFUL OUTCOME RadioLinkAdditionResponseFDD
   UNSUCCESSFUL OUTCOME
                         RadioLinkAdditionFailureFDD
   PROCEDURE ID
                      { procedureCode id-radioLinkAddition , ddMode fdd }
   CRITICALITY
                  reject
```

```
radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME RadioLinkAdditionResponseTDD
   UNSUCCESSFUL OUTCOME
                           RadioLinkAdditionFailureTDD
    PROCEDURE ID
                        { procedureCode id-radioLinkAddition , ddMode tdd }
    CRITICALITY
                    reject
radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME RadioLinkDeletionResponse
    PROCEDURE ID
                        { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY
                    reject
synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyFDD
                           RadioLinkReconfigurationFailure
   UNSUCCESSFUL OUTCOME
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkReconfigurationFailure
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseFDD
    UNSUCCESSFUL OUTCOME
                            RadioLinkReconfigurationFailure
                        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseTDD
                           RadioLinkReconfigurationFailure
   UNSUCCESSFUL OUTCOME
                        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
    UNSUCCESSFUL OUTCOME
                           PhysicalChannelReconfigurationFailure
```

```
PROCEDURE ID
                        { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    CRITICALITY
                    reject
physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
   UNSUCCESSFUL OUTCOME
                           PhysicalChannelReconfigurationFailure
    PROCEDURE ID
                        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    CRITICALITY
                   reject
dedicatedMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME DedicatedMeasurementInitiationResponse
   UNSUCCESSFUL OUTCOME
                           DedicatedMeasurementInitiationFailure
                        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
   PROCEDURE ID
    CRITICALITY
                   reject
commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseFDD
   UNSUCCESSFUL OUTCOME
                           CommonTransportChannelResourcesFailure
                        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
   PROCEDURE ID
    CRITICALITY
                    reject
commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseTDD
                           CommonTransportChannelResourcesFailure
   UNSUCCESSFUL OUTCOME
    PROCEDURE ID
                        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode tdd }
    CRITICALITY
                   reject
uplinkSignallingTransferFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationFDD
   PROCEDURE ID
                        { procedureCode id-uplinkSignallingTransfer, ddMode fdd }
    CRITICALITY
                    ignore
uplinkSignallingTransferTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationTDD
    PROCEDURE ID
                        { procedureCode id-uplinkSignallingTransfer, ddMode tdd }
    CRITICALITY
                    ignore
downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DownlinkSignallingTransferRequest
                        { procedureCode id-downlinkSignallingTransfer, ddMode common }
```

```
CRITICALITY
                    ignore
relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RelocationCommit
                        { procedureCode id-relocationCommit, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
paging RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PagingRequest
    PROCEDURE ID
                        { procedureCode id-paging, ddMode common }
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCommit
                        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCancel
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY
                    ignore
radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkFailureIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkPreemption RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkPreemptionRequiredIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY
                    ignore
radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkRestoreIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkRestoration, ddMode common }
    CRITICALITY
                    ignore
dedicatedMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementReport
                        { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
```

```
dedicatedMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementTerminationRequest
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY
                    ignore
dedicatedMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementFailureIndication
                        { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkCongestionIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkCongestion, ddMode common }
                    reject
    CRITICALITY
downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerControlRequest
    PROCEDURE ID
                        { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY
                    ignore
downlinkPowerTimeslotControl RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerTimeslotControlRequest
    PROCEDURE ID
                        { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY
                    ignore
compressedModeCommandFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CompressedModeCommand
    PROCEDURE ID
                        { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY
                    ignore
commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesReleaseRequest
    PROCEDURE ID
                        { procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    CRITICALITY
                    ignore
errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE ErrorIndication
                        { procedureCode id-errorIndication, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                           CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME
                            CommonMeasurementInitiationResponse
```

```
UNSUCCESSFUL OUTCOME
                            CommonMeasurementInitiationFailure
    PROCEDURE ID
                            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY
                            reject
commonMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementReport
    PROCEDURE ID
                        { procedureCode id-commonMeasurementReporting, ddMode common }
    CRITICALITY
commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementTerminationRequest
    PROCEDURE ID
                        { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY
                    ignore
commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementFailureIndication
                        { procedureCode id-commonMeasurementFailure, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeInitiationRequest
    INITIATING MESSAGE
    SUCCESSFUL OUTCOME
                            InformationExchangeInitiationResponse
   UNSUCCESSFUL OUTCOME
                            InformationExchangeInitiationFailure
                            { procedureCode id-informationExchangeInitiation, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationReport
                            { procedureCode id-informationReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeTerminationRequest
    PROCEDURE ID
                            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY
                            ignore
informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeFailureIndication
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY
                            ignore
privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PrivateMessage
```

```
PROCEDURE ID
                        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY
                    ignore
reset RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ResetRequest
    SUCCESSFUL OUTCOME
                            ResetResponse
    PROCEDURE ID
                            { procedureCode id-reset, ddMode common }
    CRITICALITY
                            reject
radioLinkActivationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkActivationCommandFDD
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY
radioLinkActivationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkActivationCommandTDD
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY
                            ignore
gERANuplinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE GERANUplinkSignallingTransferIndication
    PROCEDURE ID
                        { procedureCode id-gERANuplinkSignallingTransfer, ddMode common }
    CRITICALITY
                    ignore
radioLinkParameterUpdateFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkParameterUpdateIndicationFDD
                            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            ignore
radioLinkParameterUpdateTDD RNSAP-ELEMENTARY-PROCEDURE ::=
                            RadioLinkParameterUpdateIndicationTDD
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
    CRITICALITY
                            ignore
END
```

9.3.3 PDU Definitions

```
__ **********************
RNSAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Contents (1) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
__ ***********************
-- IE parameter types from other modules.
__ *********************
IMPORTS
   Active-Pattern-Sequence-Information,
   AllocationRetentionPriority,
   AllowedOueuingTime,
   Allowed-Rate-Information,
   AlphaValue,
   AntennaColocationIndicator,
   BLER,
   SCTD-Indicator,
   BindingID,
   C-ID,
   C-RNTI,
   CCTrCH-ID,
   ClosedLoopModel-SupportIndicator,
   ClosedLoopMode2-SupportIndicator,
   Closedlooptimingadjustmentmode,
   CN-CS-DomainIdentifier,
   CN-PS-DomainIdentifier,
   CNDomainType,
   Cause,
   CellCapabilityContainer-FDD,
   CellCapabilityContainer-TDD,
   CellCapabilityContainer-TDD-LCR,
   CellParameterID,
   ChipOffset,
   CommonMeasurementAccuracy,
   CommonMeasurementType,
   CommonMeasurementValue,
   CommonMeasurementValueInformation,
   CommonTransportChannelResourcesInitialisationNotRequired,
   CongestionCause,
   CoverageIndicator,
   CriticalityDiagnostics,
```

FirstRLS-Indicator, FNReportingIndicator, FrameHandlingPriority, FrameOffset, GA-AccessPointPosition, GA-Cell, GA-CellAdditionalShapes, HCS-Prio, HSDSCH-FDD-Information, HSDSCH-FDD-Information-Response, HSDSCH-FDD-Update-Information, HSDSCH-TDD-Update-Information, HSDSCH-Information-to-Modify, HSDSCH-MACdFlow-ID, HSDSCH-RNTI, HSDSCH-TDD-Information, HSDSCH-TDD-Information-Response, HS-SICH-ID, IMSI, InformationExchangeID, InformationReportCharacteristics, InformationType, InnerLoopDLPCStatus, L3-Information, SplitType, LengthOfTFCI2, LimitedPowerIncrease, MaximumAllowedULTxPower, MaxNrDLPhysicalchannels, MaxNrDLPhysicalchannelsTS, MaxNrOfUL-DPCHs, MaxNrTimeslots, MaxNrULPhysicalchannels, MeasurementFilterCoefficient, MeasurementID, MidambleAllocationMode, MidambleShiftAndBurstType, MidambleShiftLCR, MinimumSpreadingFactor, MinUL-ChannelisationCodeLength, MultiplexingPosition, NeighbouringFDDCellMeasurementInformation, NeighbouringTDDCellMeasurementInformation, Neighbouring-GSM-CellInformation, Neighbouring-UMTS-CellInformation, NeighbouringTDDCellMeasurementInformationLCR, NrOfDLchannelisationcodes, PagingCause, PagingRecordType, PartialReportingIndicator, PDSCHCodeMapping,

```
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PC-Preamble,
Permanent-NAS-UE-Identity,
Phase-Reference-Update-Indicator,
PowerAdjustmentType,
PowerOffset,
PrimaryCCPCH-RSCP,
PrimaryCPICH-EcNo,
PrimaryCPICH-Power,
Primary-CPICH-Usage-For-Channel-Estimation,
PrimaryScramblingCode,
PropagationDelay,
PunctureLimit,
QE-Selector,
Oth-Parameter,
RANAP-RelocationInformation,
RB-Info,
RL-ID,
RL-Set-ID,
RNC-ID.
RepetitionLength,
RepetitionPeriod,
ReportCharacteristics,
Received-total-wide-band-power,
RequestedDataValue,
RequestedDataValueInformation,
RL-Specific-DCH-Info,
RxTimingDeviationForTA,
S-FieldLength,
S-RNTI,
S-RNTI-Group,
SCH-TimeSlot,
SAI,
SFN,
Secondary-CCPCH-Info,
Secondary-CCPCH-Info-TDD,
Secondary-CPICH-Information-Change,
Secondary-LCR-CCPCH-Info-TDD,
SNA-Information,
SpecialBurstScheduling,
SSDT-CellID,
SSDT-CellID-Length,
SSDT-Indication,
SSDT-SupportIndicator,
STTD-Indicator,
STTD-SupportIndicator,
AdjustmentPeriod,
ScaledAdjustmentRatio,
MaxAdjustmentStep,
SecondaryCCPCH-SlotFormat,
```

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SRB-Delay,
Support-8PSK,
SyncCase,
SynchronisationConfiguration,
TDD-ChannelisationCode,
TDD-DCHs-to-Modify,
TDD-DL-Code-Information,
TDD-DPCHOffset,
TDD-PhysicalChannelOffset,
TDD-TPC-DownlinkStepSize,
TDD-ChannelisationCodeLCR,
TDD-DL-Code-LCR-Information,
TDD-UL-Code-Information,
TDD-UL-Code-LCR-Information,
TFCI-Coding,
TFCI-PC-SupportIndicator,
TFCI-Presence,
TFCI-SignallingMode,
TimeSlot,
TimeSlotLCR,
TimingAdvanceApplied,
ToAWE,
ToAWS,
TrafficClass,
TransmitDiversityIndicator,
TransportBearerID,
TransportBearerRequestIndicator,
TFCS,
Transmission-Gap-Pattern-Sequence-Information,
TransportFormatManagement,
TransportFormatSet,
TransportLayerAddress,
TrCH-SrcStatisticsDescr,
TSTD-Indicator,
TSTD-Support-Indicator,
UARFCN,
UC-ID,
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
UL-DPCCH-SlotFormat,
UL-SIR,
UL-FP-Mode,
UL-PhysCH-SF-Variation,
UL-ScramblingCode,
UL-Timeslot-Information,
UL-TimeslotLCR-Information,
UL-TimeSlot-ISCP-Info,
UL-TimeSlot-ISCP-LCR-Info,
URA-ID,
URA-Information,
USCH-ID,
```

id-Active-Pattern-Sequence-Information,

maxNrOfMeasNCell,
maxNrOfMACdFlows,
maxNrOfHSSICHs,

id-AdjustmentRatio,

```
id-AllowedOueuingTime,
id-AntennaColocationIndicator,
id-BindingID,
id-C-ID,
id-C-RNTI,
id-CFN,
id-CFNReportingIndicator,
id-CN-CS-DomainIdentifier,
id-CN-PS-DomainIdentifier,
id-Cause,
id-CauseLevel-RL-AdditionFailureFDD,
id-CauseLevel-RL-AdditionFailureTDD,
id-CauseLevel-RL-ReconfFailure,
id-CauseLevel-RL-SetupFailureFDD,
id-CauseLevel-RL-SetupFailureTDD,
id-CCTrCH-InformationItem-RL-FailureInd,
id-CCTrCH-InformationItem-RL-RestoreInd,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
id-ClosedLoopModel-SupportIndicator,
id-ClosedLoopMode2-SupportIndicator,
id-CNOriginatedPage-PagingRqst,
id-CommonMeasurementAccuracy,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rgst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
\verb|id-CommonTransportChannelResourcesInitialisationNotRequired|,\\
id-CongestionCause,
id-CoverageIndicator,
id-CriticalityDiagnostics,
id-D-RNTI,
id-D-RNTI-ReleaseIndication,
id-DCHs-to-Add-FDD,
id-DCHs-to-Add-TDD,
id-DCH-DeleteList-RL-ReconfPrepFDD,
id-DCH-DeleteList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfRgstFDD,
id-DCH-DeleteList-RL-ReconfRgstTDD,
id-DCH-FDD-Information,
id-DCH-TDD-Information,
id-FDD-DCHs-to-Modify,
id-TDD-DCHs-to-Modify,
id-DCH-InformationResponse,
id-DCH-Rate-InformationItem-RL-CongestInd,
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
```

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id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD,
id-DL-CCTrCH-InformationListIE-PhyChReconfRgstTDD,
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD.
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD.
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
id-FDD-DL-CodeInformation,
id-DL-DPCH-Information-RL-ReconfPrepFDD,
id-DL-DPCH-Information-RL-SetupRgstFDD,
id-DL-DPCH-Information-RL-ReconfRqstFDD,
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
id-DL-DPCH-InformationItem-RL-SetupRspTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-DL-DPCH-TimingAdjustment,
id-DL-Physical-Channel-Information-RL-SetupRgstTDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-PowerBalancing-UpdatedIndicator,
id-DL-ReferencePowerInformation.
id-DLReferencePower.
id-DLReferencePowerList-DL-PC-Rgst,
id-DL-ReferencePowerInformation-DL-PC-Rgst,
id-DRXCycleLengthCoefficient,
id-DedicatedMeasurementObjectType-DM-Fail,
id-DedicatedMeasurementObjectType-DM-Fail-Ind,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rgst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,
id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode,
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-FDD,
id-DSCHs-to-Add-TDD,
id-DSCH-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Delete-RL-ReconfPrepFDD,
id-DSCH-FDD-Information,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
```

```
id-DSCH-TDD-Information,
id-DSCH-FDD-InformationResponse,
id-DSCH-ModifyList-RL-ReconfPrepTDD,
id-DSCH-Modify-RL-ReconfPrepFDD,
id-DSCH-RNTI,
id-DSCHsToBeAddedOrModified-FDD,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-EnhancedDSCHPC.
id-EnhancedDSCHPCIndicator,
id-Enhanced-PrimaryCPICH-EcNo,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
id-GA-Cell,
id-GA-CellAdditionalShapes,
id-HCS-Prio,
id-HSDSCH-FDD-Information,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-FDD-Information-to-Add,
id-HSDSCH-FDD-Information-to-Delete,
id-HSDSCH-FDD-Update-Information,
id-HSDSCH-TDD-Update-Information,
id-HSDSCH-Information-to-Modify,
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd,
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
id-HSDSCH-RNTI,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSDSCH-TDD-Information-Response-LCR,
id-HSDSCH-TDD-Information-to-Add,
id-HSDSCH-TDD-Information-to-Delete,
id-HSPDSCH-RL-ID,
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
id-HSSICH-Info-DM-Rprt,
id-HSSICH-Info-DM-Rast,
id-HSSICH-Info-DM-Rsp,
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rgst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationReportCharacteristics,
id-InformationType,
id-InnerLoopDLPCStatus,
id-SplitType,
id-LengthOfTFCI2,
id-L3-Information,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MeasurementFilterCoefficient,
id-MeasurementID,
```

```
id-PagingArea-PagingRgst,
id-PartialReportingIndicator,
id-PDSCH-RL-ID,
id-Permanent-NAS-UE-Identity,
id-Phase-Reference-Update-Indicator,
id-FACH-FlowControlInformation,
id-PowerAdjustmentType,
id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
id-Primary-CPICH-Usage-For-Channel-Estimation,
id-PropagationDelay,
id-Qth-Parameter,
id-RANAP-RelocationInformation.
id-ResetIndicator,
id-RL-Information-PhyChReconfRqstFDD,
id-RL-Information-PhyChReconfRqstTDD,
id-RL-Information-RL-AdditionRqstFDD,
id-RL-Information-RL-AdditionRqstTDD,
id-RL-Information-RL-DeletionRqst,
id-RL-Information-RL-FailureInd,
id-RL-Information-RL-ReconfPrepFDD,
id-RL-Information-RL-RestoreInd.
id-RL-Information-RL-SetupRgstFDD,
id-RL-Information-RL-SetupRgstTDD,
id-RL-InformationItem-RL-CongestInd,
id-RL-InformationItem-DM-Rprt,
id-RL-InformationItem-DM-Rgst,
id-RL-InformationItem-DM-Rsp,
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-SetupRqstFDD,
id-RL-InformationList-RL-CongestInd,
id-RL-InformationList-RL-AdditionRgstFDD,
id-RL-InformationList-RL-DeletionRqst,
id-RL-InformationList-RL-PreemptRequiredInd,
id-RL-InformationList-RL-ReconfPrepFDD,
id-RL-InformationResponse-RL-AdditionRspTDD,
id-RL-InformationResponse-RL-ReconfReadyTDD,
id-RL-InformationResponse-RL-ReconfRspTDD,
id-RL-InformationResponse-RL-SetupRspTDD,
id-RL-InformationResponseItem-RL-AdditionRspFDD,
id-RL-InformationResponseItem-RL-ReconfReadyFDD,
id-RL-InformationResponseItem-RL-ReconfRspFDD,
id-RL-InformationResponseItem-RL-SetupRspFDD,
id-RL-InformationResponseList-RL-AdditionRspFDD,
id-RL-InformationResponseList-RL-ReconfReadyFDD,
id-RL-InformationResponseList-RL-ReconfRspFDD,
id-RL-InformationResponseList-RL-SetupRspFDD,
id-RL-ParameterUpdateIndicationFDD-RL-Information-Item,
id-RL-ParameterUpdateIndicationFDD-RL-InformationList,
id-RL-ReconfigurationFailure-RL-ReconfFail,
id-RL-ReconfigurationReadyTDD-RL-Information,
id-RL-ReconfigurationRequestFDD-RL-InformationList,
```

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id-RL-ReconfigurationReguestFDD-RL-Information-IEs,
id-RL-ReconfigurationRequestTDD-RL-Information,
id-RL-Specific-DCH-Info,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rgst,
id-RL-Set-InformationItem-DM-Rsp,
id-RL-Set-Information-RL-FailureInd,
id-RL-Set-Information-RL-RestoreInd,
id-RL-Set-Successful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
id-RL-Successful-InformationItem-DM-Fail,
id-RL-Unsuccessful-InformationItem-DM-Fail,
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind.
id-ReportCharacteristics.
id-Reporting-Object-RL-FailureInd,
id-Reporing-Object-RL-RestoreInd,
id-RNC-ID,
id-RxTimingDeviationForTA,
id-S-RNTI,
id-SAI.
id-Secondary-CPICH-Information-Change,
id-SFNReportingIndicator,
id-SNA-Information,
id-SRNC-ID,
id-SSDT-CellIDforEDSCHPC.
id-STTD-SupportIndicator,
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-TDD-maxNrDLPhysicalchannels,
id-TDD-Support-8PSK,
id-TFCI-PC-SupportIndicator,
id-timeSlot-ISCP,
id-TimeSlot-RL-SetupRspTDD,
id-TransportBearerID,
id-TransportBearerRequestIndicator,
id-TransportLayerAddress,
id-UC-ID,
id-ContextInfoItem-Reset,
id-ContextGroupInfoItem-Reset,
id-Transmission-Gap-Pattern-Sequence-Information,
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
```

```
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD.
id-UL-CCTrCH-InformationList-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRqstFDD,
id-UL-DPCH-Information-RL-SetupRgstFDD.
id-UL-DPCH-InformationItem-PhyChReconfRgstTDD,
id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
id-UL-DPCH-InformationItem-RL-SetupRspTDD,
id-UL-DPCH-InformationAddListIE-RL-ReconfReadvTDD.
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-UL-Physical-Channel-Information-RL-SetupRqstTDD,
id-UL-SIRTarget.
id-URA-Information.
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
id-USCHs-to-Add,
id-USCH-DeleteList-RL-ReconfPrepTDD,
id-USCH-InformationListIE-RL-AdditionRspTDD,
id-USCH-InformationListIEs-RL-SetupRspTDD,
id-USCH-Information,
id-USCH-ModifyList-RL-ReconfPrepTDD,
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD,
id-RL-LCR-InformationResponse-RL-SetupRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRgstTDD,
id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
```

OPTIONAL.

```
id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
   id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
   id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD,
   id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD,
   id-TSTD-Support-Indicator-RL-SetupRgstTDD.
   id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
    id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
   id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
   id-neighbouringTDDCellMeasurementInformationLCR,
   id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
   id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD,
   id-TrafficClass,
   id-UL-Synchronisation-Parameters-LCR,
    id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD.
   id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
   id-MAChs-ResetIndicator,
   id-UL-TimingAdvanceCtrl-LCR,
   id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD,
   id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD,
   id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD,
    id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD,
   id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD,
   id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD,
    id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
    id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
   id-DL-CCTrCH-InformationList-RL-ReconfRspTDD,
    id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRgstTDD,
   id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
   id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD,
   id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
   id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD
FROM RNSAP-Constants;
     -- RADIO LINK SETUP REQUEST FDD
  *****************
RadioLinkSetupRequestFDD ::= SEOUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkSetupRequestFDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}
```

```
RadioLinkSetupReguestFDD-IEs RNSAP-PROTOCOL-IES ::= {
      ID id-SRNC-ID
                                    CRITICALITY reject TYPE RNC-ID
                                                                                        PRESENCE mandatory}
      ID id-S-RNTI
                                    CRITICALITY reject TYPE S-RNTI
                                                                                        PRESENCE mandatory }
      ID id-D-RNTI
                                    CRITICALITY reject TYPE D-RNTI
                                                                                    PRESENCE optional } |
      ID id-AllowedOueuingTime
                                        CRITICALITY reject TYPE AllowedOueuingTime
                                                                                                PRESENCE optional
     ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE UL-DPCH-Information-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
      ID id-DL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE DL-DPCH-Information-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
     ID id-DCH-FDD-Information
                                    CRITICALITY reject TYPE DCH-FDD-Information
                                                                                        PRESENCE mandatory }
     ID id-DSCH-FDD-Information
                                    CRITICALITY reject TYPE DSCH-FDD-Information
                                                                                            PRESENCE optional
     ID id-RL-Information-RL-SetupRgstFDD
                                                CRITICALITY notify TYPE RL-InformationList-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
    { ID id-Transmission-Gap-Pattern-Sequence-Information
                                                                CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information
                                                                                                                                         PRESENCE
    optional }
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE
    ul-ScramblingCode
                                    UL-ScramblingCode,
    minUL-ChannelisationCodeLength
                                            MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs
                                    MaxNrOfUL-DPCHs
                                                            OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
   ul-PunctureLimit
                                    PunctureLimit,
   ul-TFCS
                                    TFCS.
   ul-DPCCH-SlotFormat
                                    UL-DPCCH-SlotFormat,
    ul-SIRTarget
                                    UL-SIR
                                                    OPTIONAL,
    diversityMode
                                    DiversityMode,
    sSDT-CellIdLength
                                    SSDT-CellID-Length
                                                            OPTIONAL.
                                                            OPTIONAL,
    s-FieldLength
                                    S-FieldLength
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRgstFDD-ExtIEs} } OPTIONAL,
UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-DPC-Mode
                                    CRITICALITY reject
                                                            EXTENSION DPC-Mode PRESENCE optional },
    . . .
DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    t.FCS
                                    TFCS,
    dl-DPCH-SlotFormat
                                    DL-DPCH-SlotFormat,
   nrOfDLchannelisationcodes
                                    NrOfDLchannelisationcodes,
    tFCI-SignallingMode
                                    TFCI-SignallingMode,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition
                                        MultiplexingPosition,
    powerOffsetInformation
                                        PowerOffsetInformation-RL-SetupRgstFDD,
    fdd-dl-TPC-DownlinkStepSize
                                    FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease
                                    LimitedPowerIncrease,
    innerLoopDLPCStatus
                                    InnerLoopDLPCStatus,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
```

```
DL-DPCH-Information-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-SplitType CRITICALITY reject EXTENSION SplitType PRESENCE optional }
   PowerOffsetInformation-RL-SetupRgstFDD ::= SEOUENCE {
      pol-ForTFCI-Bits
                                    PowerOffset,
      po2-ForTPC-Bits
                                    PowerOffset,
      po3-ForPilotBits
                                    PowerOffset,
      iE-Extensions
                                    ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-SetupRqstFDD
                                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD } }
RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
RL-InformationItem-RL-SetupRgstFDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   c-ID
                                C-ID.
   firstRLS-indicator
                                FirstRLS-Indicator,
   frameOffset
                                FrameOffset,
   chipOffset
                                ChipOffset,
   propagationDelay
                                PropagationDelay
                                                      OPTIONAL,
   diversityControlField
                                DiversityControlField
                                                          OPTIONAL
   -- This IE shall be present if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
   dl-InitialTX-Power
                                DL-Power
                                                  OPTIONAL,
   primaryCPICH-EcNo
                                PrimaryCPICH-EcNo
                                                          OPTIONAL,
                                SSDT-CellID
   sSDT-CellID
                                                  OPTIONAL,
   transmitDiversityIndicator
                                TransmitDiversityIndicator
                                                             OPTIONAL,
   -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
   iE-Extensions
                                ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-CellID
                                                                            PRESENCE conditional }
   -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Information IE.
     ID id-Enhanced-PrimaryCPICH-EcNo
                                               CRITICALITY ignore
                                                                        EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                              PRESENCE optional } |
     ID id-RL-Specific-DCH-Info CRITICALITY ignore
                                                      EXTENSION RL-Specific-DCH-Info
                                                                                      PRESENCE optional } |
    ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
```

```
{ ID id-Oth-Parameter CRITICALITY ignore
                                                                                PRESENCE optional },
                                                  EXTENSION
                                                              Oth-Parameter
RadioLinkSetupReguestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                                                                                   PRESENCE optional } |
                                                  CRITICALITY ignore
                                                                             EXTENSION Permanent-NAS-UE-Identity
     ID id-DL-PowerBalancing-Information
                                              CRITICALITY ignore
                                                                      EXTENSION DL-PowerBalancing-Information
                                                                                                                   PRESENCE optional } |
     ID id-HSDSCH-FDD-Information
                                                  CRITICALITY reject
                                                                             EXTENSION HSDSCH-FDD-Information
                                                                                                                   PRESENCE optional } |
    { ID id-HSPDSCH-RL-ID
                                                  CRITICALITY reject
                                                                             EXTENSION RL-ID
                                                                                                                   PRESENCE conditional } |
   -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                      CRITICALITY ignore
                                                                                             EXTENSION UE-Support-Of-Dedicated-Pilots-For-Channel-
Estimation
               PRESENCE optional } |
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH
                                                                                 CRITICALITY ignore
                                                                                                       EXTENSION UE-Support-Of-Dedicated-Pilots-
For-Channel-Estimation-Of-HS-DSCH
                                      PRESENCE optional }.
        -- RADIO LINK SETUP REQUEST TDD
  *****************
RadioLinkSetupRequestTDD ::= SEQUENCE {
                                                             {{RadioLinkSetupRequestTDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}
                                                                                                                     OPTIONAL,
RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                                      CRITICALITY reject TYPE RNC-ID
                                                                                                                        PRESENCE mandatory }
     ID id-S-RNTI
                                                      CRITICALITY reject TYPE S-RNTI
                                                                                                                        PRESENCE mandatory }
     ID id-D-RNTI
                                                      CRITICALITY reject TYPE D-RNTI
                                                                                                                        PRESENCE optional }
     ID id-UL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject TYPE UL-Physical-Channel-Information-RL-SetupRqstTDD
                                                                                                                                    PRESENCE
mandatory } |
    { ID id-DL-Physical-Channel-Information-RL-SetupRgstTDD CRITICALITY reject TYPE DL-Physical-Channel-Information-RL-SetupRgstTDD
                                                                                                                                    PRESENCE
mandatory } |
     ID id-AllowedQueuingTime
                                                      CRITICALITY reject TYPE AllowedQueuingTime
                                                                                                                        PRESENCE optional }
                                                      CRITICALITY notify TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                        PRESENCE optional }
     ID id-UL-CCTrCH-InformationList-RL-SetupRgstTDD
     ID id-DL-CCTrCH-InformationList-RL-SetupRgstTDD
                                                      CRITICALITY notify TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                        PRESENCE optional }
     ID id-DCH-TDD-Information
                                      CRITICALITY reject TYPE DCH-TDD-Information
                                                                                             PRESENCE optional
     ID id-DSCH-TDD-Information
                                      CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                             PRESENCE optional
     ID id-USCH-Information
                                  CRITICALITY reject TYPE USCH-Information
                                                                                     PRESENCE optional }
                                                                                                                        PRESENCE mandatory },
    { ID id-RL-Information-RL-SetupRgstTDD
                                                      CRITICALITY reject TYPE RL-Information-RL-SetupRqstTDD
    . . .
UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
   maxNrTimeslots-UL
                                   MaxNrTimeslots,
   minimumSpreadingFactor-UL
                                  MinimumSpreadingFactor,
   maxNrULPhysicalchannels
                                   MaxNrULPhysicalchannels,
```

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iE-Extensions
                                  ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
UL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
                                                                                   PRESENCE optional },
    { ID id-TDD-Support-8PSK
                                 CRITICALITY ignore
                                                        EXTENSION Support-8PSK
    -- Applicable to 1.28Mcps TDD only
DL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
   maxNrTimeslots-DL
                                 MaxNrTimeslots,
   minimumSpreadingFactor-DL
                                 MinimumSpreadingFactor,
   maxNrDLPhysicalchannels
                                 MaxNrDLPhysicalchannels,
   iE-Extensions
                                  ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TDD-maxNrDLPhysicalchannels
                                         CRITICALITY ignore
                                                                    EXTENSION MaxNrDLPhysicalchannelsTS
                                                                                                          PRESENCE optional }
     ID id-TDD-Support-8PSK
                                         CRITICALITY ignore
                                                                    EXTENSION Support-8PSK
                                                                                                       PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationList-RL-SetupRgstTDD
                                                 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }
UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
    UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   ul-TFCS
                              TFCS,
   tFCI-Coding
                              TFCI-Coding,
   ul-PunctureLimit
                                  PunctureLimit,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD
                                                                                         TDD-TPC-UplinkStepSize-LCR
                                                                                                                        PRESENCE optional },
                                                        CRITICALITY reject
                                                                               EXTENSION
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
    . . .
DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                 ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }
DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD CRITICALITY notify TYPE DL-CCTrCH-InformationItem-RL-SetupRgstTDD PRESENCE mandatory
DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    dl-TFCS
                                TFCS,
    tFCI-Coding
                                TFCI-Coding,
   dl-PunctureLimit
                                    PunctureLimit,
    tdd-TPC-DownlinkStepSize
                                    TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList
                                    CCTrCH-TPCList-RL-SetupRqstTDD OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    . . .
DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD
CCTrCH-TPCItem-RL-SetupRgstTDD ::= SEQUENCE {
    cCTrCH-ID
    iE-Extensions
                                        ProtocolExtensionContainer { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-SetupRgstTDD ::= SEQUENCE
    rL-ID
                                RL-ID,
    c-ID
                                C-ID,
    frameOffset
                                FrameOffset,
    specialBurstScheduling
                                SpecialBurstScheduling,
    primaryCCPCH-RSCP
                                    PrimaryCCPCH-RSCP
                                                            OPTIONAL,
    dL-TimeSlot-ISCP
                                    DL-TimeSlot-ISCP-Info
                                                            OPTIONAL,
    --for 3.84Mcps TDD only
                                    ProtocolExtensionContainer { {RL-Information-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD
                                                                CRITICALITY reject
                                                                                        EXTENSION
                                                                                                     DL-TimeSlot-ISCP-LCR-Information PRESENCE optional
     ID id-TSTD-Support-Indicator-RL-SetupRgstTDD
                                                                CRITICALITY ignore
                                                                                        EXTENSION
                                                                                                     TSTD-Support-Indicator
                                                                                                                                      PRESENCE optional
    --for 1.28Mcps TDD only
     ID id-RL-Specific-DCH-Info
                                    CRITICALITY ignore
                                                            EXTENSION RL-Specific-DCH-Info
                                                                                                PRESENCE optional } |
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional } |
```

```
ID id-UL-Synchronisation-Parameters-LCR
                                                                            EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                             PRESENCE
                                                                                                                                        optional
                                                     CRITICALITY ignore
   }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    . . .
RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                 CRITICALITY ignore
                                                                            EXTENSION Permanent-NAS-UE-Identity
                                                                                                                 PRESENCE optional } |
     ID id-HSDSCH-TDD-Information
                                                                            EXTENSION HSDSCH-TDD-Information PRESENCE optional } |
                                                 CRITICALITY reject
     ID id-HSPDSCH-RL-ID
                                                 CRITICALITY reject
                                                                            EXTENSION RL-ID
                                                                                                                 PRESENCE conditional } |
    { ID id-PDSCH-RL-ID
                                  CRITICALITY ignore
                                                             EXTENSION RL-ID
                                                                                PRESENCE optional },
   -- RADIO LINK SETUP RESPONSE FDD
  *****************
RadioLinkSetupResponseFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkSetupResponseFDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                     OPTIONAL,
RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                          CRITICALITY ignore TYPE D-RNTI
                                                                                            PRESENCE optional
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                              PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                                                                             PRESENCE optional }
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
     ID id-RL-InformationResponseList-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseList-RL-SetupRspFDD PRESENCE mandatory
     ID id-UL-SIRTarget
                                          CRITICALITY ignore TYPE UL-SIR
                                                                                        PRESENCE optional } |
     ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
    . . .
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponseItemIEs-RL-
RL-InformationResponseList-RL-SetupRspFDD
SetupRspFDD} }
RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseItem-RL-SetupRspFDD PRESENCE mandatory
RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   rL-Set-ID
                                  RL-Set-ID,
   uRA-Information
                                  URA-Information
                                                     OPTIONAL,
   sAI
                                  SAI,
   qA-Cell
                                  GA-Cell
                                             OPTIONAL,
   gA-AccessPointPosition
                                  GA-AccessPointPosition
                                                             OPTIONAL.
   received-total-wide-band-power Received-total-wide-band-power,
   secondary-CCPCH-Info
                                  Secondary-CCPCH-Info
                                                             OPTIONAL,
```

```
dl-CodeInformation
                                    FDD-DL-CodeInformation,
    diversityIndication
                                    DiversityIndication-RL-SetupRspFDD,
                                    SSDT-SupportIndicator,
    sSDT-SupportIndicator
    maxUL-SIR
                                    UL-SIR,
   minUL-SIR
                                    UL-SIR,
   closedlooptimingadjustmentmode Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                    MaximumAllowedULTxPower,
    maximumDLTxPower
                                    DL-Power,
   minimumDLTxPower
                                    DL-Power,
   primaryScramblingCode
                                    PrimaryScramblingCode
                                                            OPTIONAL,
   uL-UARFCN
                                    UARFCN
                                                            OPTIONAL,
   dL-UARFCN
                                    UARFCN
                                                            OPTIONAL,
   primaryCPICH-Power
                                    PrimaryCPICH-Power,
   dSCHInformationResponse
                                    DSCH-InformationResponse-RL-SetupRspFDD OPTIONAL,
   neighbouring-UMTS-CellInformation Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
                                    PC-Preamble,
   pC-Preamble
    sRB-Delay
                                    SRB-Delay,
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION
                                                                            GA-CellAdditionalShapes
                                                                                                        PRESENCE optional }
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                            EXTENSION
                                                                                            DL-PowerBalancing-ActivationIndicator
                                                                                                                                      PRESENCE
optional}|
     ID id-HSDSCH-FDD-Information-Response
                                                                            EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                          PRESENCE optional } |
                                                    CRITICALITY ignore
     ID id-TFCI-PC-SupportIndicator
                                            CRITICALITY ignore EXTENSION
                                                                            TFCI-PC-SupportIndicator
                                                                                                        PRESENCE optional } |
     ID id-HCS-Prio
                                CRITICALITY ignore EXTENSION
                                                                HCS-Prio
                                                                                PRESENCE optional } |
     ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                            CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                            PRESENCE
optional },
DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining
                                    Combining-RL-SetupRspFDD,
   nonCombiningOrFirstRL
                                    NonCombiningOrFirstRL-RL-SetupRspFDD
Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID
                                ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                            CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                        PRESENCE optional },
```

```
NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
   dCH-InformationResponse
                           DCH-InformationResponse,
   iE-Extensions
                            ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
   . . .
NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseIE-RL-SetupRspFDD }}
DSCH-InformationResponseIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
   DSCH-FDD-InformationResponse PRESENCE mandatory }
RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
                                                                             PRESENCE optional } |
     ID id-DSCH-RNTI
                               CRITICALITY ignore
                                                        EXTENSION DSCH-RNTI
   { ID id-HSDSCH-RNTI
                                                                                   PRESENCE optional },
                           CRITICALITY reject
                                                EXTENSION HSDSCH-RNTI
-- RADIO LINK SETUP RESPONSE TDD
      RadioLinkSetupResponseTDD ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{RadioLinkSetupResponseTDD-IEs}},
                               ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
   . . .
RadioLinkSetupResponseTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                               CRITICALITY ignore TYPE D-RNTI
                                                                             PRESENCE optional }
     ID id-CN-PS-DomainIdentifier
                                      CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                     PRESENCE optional }
     ID id-CN-CS-DomainIdentifier
                                                                                     PRESENCE optional }
                                      CRITICALITY ignore TYPE CN-CS-DomainIdentifier
   -- Mandatory for 3.84Mcps TDD only
    ID id-UL-SIRTarget
                                   CRITICALITY ignore TYPE UL-SIR
                                                                             PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                     PRESENCE optional },
RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
   rL-ID
                            RL-ID.
   uRA-Information
                           URA-Information
                                             OPTIONAL,
   sAI
                            SAI,
                            GA-Cell
   gA-Cell
                                      OPTIONAL,
```

```
qA-AccessPointPosition
                                GA-AccessPointPosition OPTIONAL,
    ul-TimeSlot-ISCP-Info
                                UL-TimeSlot-ISCP-Info,
    maxUL-SIR
                                UL-SIR,
    minUL-SIR
                                UL-SIR,
    maximumAllowedULTxPower
                                MaximumAllowedULTxPower,
    maximumDLTxPower
                                DL-Power,
    minimumDLTxPower
                                DL-Power,
    uARFCNforNt
                                UARFCN
                                                    OPTIONAL,
    cellParameterID
                                CellParameterID
                                                    OPTIONAL,
    syncCase
                                                    OPTIONAL,
                                SyncCase
    sCH-TimeSlot
                                SCH-TimeSlot
                                                    OPTIONAL,
    -- This IE shall be present if Sync Case IE is Case2. --
                        SCTD-Indicator OPTIONAL,
    sCTD-Indicator
    pCCPCH-Power
                                PCCPCH-Power,
                                TimingAdvanceApplied,
    timingAdvanceApplied
    alphaValue
                                AlphaValue,
    ul-PhysCH-SF-Variation
                                UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                        Secondary-CCPCH-Info-TDD
                                                                    OPTIONAL,
    ul-CCTrCHInformation
                                        UL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                     OPTIONAL,
    dl-CCTrCHInformation
                                        DL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                     OPTIONAL.
    dCH-InformationResponse
                                        DCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
    dsch-InformationResponse
                                        DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
                                        USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse
                                                Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-UMTS-CellInformation
    neighbouring-GSM-CellInformation
                                                Neighbouring-GSM-CellInformation OPTIONAL,
                                    ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION
                                                                            GA-CellAdditionalShapes
                                                                                                        PRESENCE optional } |
      ID id-HSDSCH-TDD-Information-Response
                                                CRITICALITY ignore
                                                                         EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                        PRESENCE optional }
      ID id-HCS-Prio
                                                                                 PRESENCE optional } |
                                CRITICALITY ignore EXTENSION HCS-Prio
      ID id-TimeSlot-RL-SetupRspTDD
                                        CRITICALITY ignore EXTENSION
                                                                       TimeSlot
                                                                                     PRESENCE conditional },
    -- This IE shall be present if Sync Case IE is Casel. --
UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                 PRESENCE mandatory }
UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD
UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    ul-DPCH-Information
                                    UL-DPCH-InformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
```

```
UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD
                                                               CRITICALITY ignore
                                                                                      EXTENSION UL-SIR
                                                                                                        PRESENCE optional },
   . . .
UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD
                                                    CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   uL-Timeslot-Information
                                 UL-Timeslot-Information,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
   DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD
DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   dl-DPCH-Information
                                 DL-DPCH-InformationList-RL-SetupRspTDD
                                                                          OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD
                                                    CRITICALITY ignore
                                                                                                PRESENCE optional } | -- this is a DCH type
                                                                          EXTENSION DL-Power
CCTrCH power
   { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD
                                                    CRITICALITY ignore
                                                                          EXTENSION DL-Power
                                                                                                PRESENCE optional \}, -- this is a DCH type
CCTrCH power
```

```
DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod
                                   RepetitionPeriod,
   repetitionLength
                                   RepetitionLength,
   tDD-DPCHOffset
                                   TDD-DPCHOffset,
   dL-Timeslot-Information
                                   DL-Timeslot-Information,
                                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}
DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}
DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD
DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   dsch-ID
                           DSCH-ID,
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                           BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress
    transportFormatManagement TransportFormatManagement,
   iE-Extensions
                           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
```

```
USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD
USCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
   usch-ID
                                USCH-ID,
   bindingID
                                BindingID OPTIONAL,
   transportLayerAddress
                                TransportLayerAddress OPTIONAL,
    transportFormatManagement
                                TransportFormatManagement,
    iE-Extensions
                                ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD CRITICALITY ignore EXTENSION
                                                                                         RL-LCR-InformationResponse-RL-SetupRspTDD
                                                                                                                                       PRESENCE
optional}|
    -- Mandatory for 1.28Mcps TDD only
     ID id-HSDSCH-RNTI
                                                                                                 PRESENCE optional } |
                                CRITICALITY reject
                                                         EXTENSION HSDSCH-RNTI
    { ID id-DSCH-RNTI
                                                                                         PRESENCE optional },
                                    CRITICALITY ignore
                                                                 EXTENSION DSCH-RNTI
RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   uRA-Information
                                URA-Information,
   sAI
                                SAI,
   qA-Cell
                                GA-Cell
                                            OPTIONAL,
   gA-AccessPointPosition
                                GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-LCR-Info
                                UL-TimeSlot-ISCP-LCR-Info,
   maxUL-SIR
                                UL-SIR,
   minUL-SIR
                                UL-SIR,
   maximumAllowedULTxPower
                                MaximumAllowedULTxPower,
    maximumDLTxPower
                                DL-Power,
   minimumDLTxPower
                                DL-Power,
   uARFCNforNt
                                UARFCN
                                                         OPTIONAL,
    cellParameterID
                                CellParameterID
                                                         OPTIONAL,
    sCTD-Indicator
                        SCTD-Indicator OPTIONAL,
   pCCPCH-Power
                                PCCPCH-Power,
    alphaValue
                                AlphaValue,
   ul-PhysCH-SF-Variation
                                UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                            SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                            Secondary-LCR-CCPCH-Info-TDD
                                                                                             OPTIONAL,
   ul-LCR-CCTrCHInformation
                                            UL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
   dl-LCR-CCTrCHInformation
                                            DL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
   dCH-InformationResponse
                                            DCH-InformationResponseList-RL-SetupRspTDD
                                                                                             OPTIONAL.
   dsch-LCR-InformationResponse
                                            DSCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                             OPTIONAL,
    usch-LCR-InformationResponse
                                            USCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                             OPTIONAL,
```

```
neighbouring-UMTS-CellInformation
                                          Neighbouring-UMTS-CellInformation
                                                                                         OPTIONAL,
   neighbouring-GSM-CellInformation
                                          Neighbouring-GSM-CellInformation
                                                                                         OPTIONAL,
   iE-Extensions
                                          RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                                                                                             PRESENCE optional } |
                                                  CRITICALITY ignore EXTENSION
                                                                                 GA-CellAdditionalShapes
     ID id-HSDSCH-TDD-Information-Response-LCR
                                                  CRITICALITY ignore EXTENSION HSDSCH-TDD-Information-Response PRESENCE optional |
                                                                                                             PRESENCE optional },
    { ID id-UL-TimingAdvanceCtrl-LCR
                                                  CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
    --Mandatory for 1.28Mcps TDD only
    . . .
UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                 PRESENCE mandatory
UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
   cCTrCH-ID
                               CCTrCH-ID,
   ul-DPCH-LCR-Information
                               UL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                             OPTIONAL,
    iE-Extensions
                               ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
                                                                      CRITICALITY ignore
                                                                                                                PRESENCE optional },
                                                                                             EXTENSION UL-SIR
    . . .
UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                          CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
                                  RepetitionPeriod,
    repetitionPeriod
   repetitionLength
                                  RepetitionLength,
                                   TDD-DPCHOffset,
    tDD-DPCHOffset
   uL-TimeslotLCR-Information
                                  UL-TimeslotLCR-Information,
   iE-Extensions
                                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
   DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   dl-DPCH-LCR-Information DL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                          OPTIONAL,
   iE-Extensions
                             ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                     CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   dL-Timeslot-LCR-Information
                                 DL-TimeslotLCR-Information,
   tSTD-Indicator
                                 TSTD-Indicator,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}
DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                       CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD
DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
```

```
dsch-ID
                          DSCH-ID.
    dSCH-FlowControlInformation
                                  DSCH-FlowControlInformation,
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
                          ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}
USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                         CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEOUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD
USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   usch-ID
                              USCH-ID,
   bindingID
                              BindingID OPTIONAL,
   transportLayerAddress
                              TransportLayerAddress
                                                     OPTIONAL,
    transportFormatManagement
                              TransportFormatManagement,
                              ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   *****************
-- RADIO LINK SETUP FAILURE FDD
__ ********************
RadioLinkSetupFailureFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkSetupFailureFDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}
                                                                                                                    OPTIONAL,
   protocolExtensions
RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                PRESENCE optional } |
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                              PRESENCE optional }
     ID id-CauseLevel-RL-SetupFailureFDD
                                                     CRITICALITY ignore
                                                                           TYPE CauseLevel-RL-SetupFailureFDD
                                                                                                                  PRESENCE mandatory } |
```

```
ID id-UL-SIRTarget
                                                                                         PRESENCE optional }
                                        CRITICALITY ignore TYPE UL-SIR
    { ID id-CriticalityDiagnostics
                                            CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                   PRESENCE optional },
    . . .
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause
                        GeneralCauseList-RL-SetupFailureFDD,
                        RLSpecificCauseList-RL-SetupFailureFDD,
    rLSpecificCause
GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE
   iE-Extensions
                                                ProtocolExtensionContainer { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }
                                                                                                                                OPTIONAL,
    . . .
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD
                                                                UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD
                                                                SuccessfulRL-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }
    iE-Extensions
    . . .
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-DSCH-RNTI
                                CRITICALITY ignore
                                                        EXTENSION DSCH-RNTI
                                                                                                 PRESENCE optional } |
      ID id-HSDSCH-RNTI
                                CRITICALITY reject
                                                        EXTENSION HSDSCH-RNTI
                                                                                                 PRESENCE optional },
UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                        CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory }
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
                                RL-ID,
    rL-ID
    cause
                                Cause,
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Successful RL-Information Response List-RL-Setup Failure FDD ::= SEOUENCE (SIZE (0...maxNrOfRLs-1)) OF Protocol IE-Single-Container { {Successful RL-
InformationResponse-RL-SetupFailureFDD-IEs}
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                   CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
   rL-ID
                                           RL-ID.
   rL-Set-ID
                                           RL-Set-ID,
   uRA-Information
                                           URA-Information
                                                               OPTIONAL.
   sAI
                                           SAI,
   qA-Cell
                                           GA-Cell
                                                       OPTIONAL.
   gA-AccessPointPosition
                                           GA-AccessPointPosition
                                                                       OPTIONAL,
   received-total-wide-band-power
                                                                   Received-total-wide-band-power,
   secondary-CCPCH-Info
                                           Secondary-CCPCH-Info
                                                                       OPTIONAL,
   dl-CodeInformation
                                           FDD-DL-CodeInformation,
   diversityIndication
                                           DiversityIndication-RL-SetupFailureFDD,
      This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
      the tabular message format in subglause 9.1.
    sSDT-SupportIndicator
                                           SSDT-SupportIndicator,
    maxUL-SIR
                                           UL-SIR,
   minUL-SIR
                                           UL-SIR,
   closedlooptimingadjustmentmode
                                           Closedlooptimingadjustmentmode OPTIONAL,
                                           MaximumAllowedULTxPower,
    maximumAllowedULTxPower
   maximumDLTxPower
                                           DL-Power,
   minimumDLTxPower
                                           DL-Power,
   primaryCPICH-Power
                                           PrimaryCPICH-Power,
   primaryScramblingCode
                                           PrimaryScramblingCode
                                                                  OPTIONAL,
   uL-UARFCN
                                                   UARFCN
                                                               OPTIONAL,
                                                               OPTIONAL,
   dL-UARFCN
                                                   UARFCN
   dSCH-InformationResponse-RL-SetupFailureFDD
                                                   DSCH-InformationResponseList-RL-SetupFailureFDD
                                                                                                      OPTIONAL,
   neighbouring-UMTS-CellInformation
                                           Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
                                           Neighbouring-GSM-CellInformation OPTIONAL,
   pC-Preamble
                                           PC-Preamble,
    sRB-Delay
                                           SRB-Delay,
    iE-Extensions
                                           ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                           CRITICALITY ignore EXTENSION
                                                                          GA-CellAdditionalShapes
                                                                                                      PRESENCE optional } |
                                                                                          DL-PowerBalancing-ActivationIndicator
    EXTENSION
                                                                                                                                   PRESENCE
optional}|
     ID id-HSDSCH-FDD-Information-Response
                                                   CRITICALITY ignore
                                                                           EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                       PRESENCE optional |
     ID id-TFCI-PC-SupportIndicator
                                           CRITICALITY ignore EXTENSION
                                                                          TFCI-PC-SupportIndicator
                                                                                                     PRESENCE optional } |
     ID id-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                              PRESENCE optional } |
```

```
{ ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                     CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                            PRESENCE
optional },
   . . .
DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
   combining
                                Combining-RL-SetupFailureFDD,
   nonCombiningOrFirstRL
                            NonCombiningOrFirstRL-RL-SetupFailureFDD
Combining-RL-SetupFailureFDD ::= SEQUENCE {
   iE-Extensions
                            ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   . . .
CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DCH-InformationResponse
                                       CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                            PRESENCE optional },
   . . .
NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                                       DCH-InformationResponse,
                                       ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupFailureFDD }}
DSCH-InformationResponseListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK SETUP FAILURE TDD
  ******************
RadioLinkSetupFailureTDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                        {{RadioLinkSetupFailureTDD-IEs}},
                                ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL
```

```
RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
     PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                        PRESENCE optional },
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
                     GeneralCauseList-RL-SetupFailureTDD,
   generalCause
                     RLSpecificCauseList-RL-SetupFailureTDD,
   rLSpecificCause
   . . .
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
   cause
                            ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }
   iE-Extensions
                                                                                                     OPTIONAL,
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
   iE-Extensions
                                                      . . .
RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD} }
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
          id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD
                                                                   CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD
                  PRESENCE
                            mandatory
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
   rL-ID
                            RL-ID,
   cause
                            Cause,
                                ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ****************
-- RADIO LINK ADDITION REQUEST FDD
RadioLinkAdditionRequestFDD ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{RadioLinkAdditionRequestFDD-IEs}},
   protocolExtensions
                              ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}
                                                                                                         OPTIONAL,
RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-UL-SIRTarget
                                 CRITICALITY reject TYPE UL-SIR
                                                                          PRESENCE mandatory }
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
RL-InformationList-RL-AdditionRgstFDD
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRgstFDD-IEs} }
RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
   RL-Information-RL-AdditionRqstFDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   c-ID
                              C-ID,
   frameOffset
                              FrameOffset,
   chipOffset
                              ChipOffset,
   diversityControlField
                              DiversityControlField,
                              PrimaryCPICH-EcNo
                                                  OPTIONAL,
   primaryCPICH-EcNo
   sSDT-CellID
                              SSDT-CellID
                                               OPTIONAL,
   transmitDiversityIndicator
                              TransmitDiversityIndicator
                                                          OPTIONAL,
                              ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DLReferencePower CRITICALITY ignore
                                               EXTENSION DL-Power
                                                                       PRESENCE optional |
     ID id-Enhanced-PrimaryCPICH-EcNo
                                            CRITICALITY ignore
                                                                    EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                       PRESENCE optional } |
    ID id-RL-Specific-DCH-Info
                                 CRITICALITY ignore
                                                      EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                             optional }|
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
   { ID id-Qth-Parameter CRITICALITY ignore
                                            EXTENSION Qth-Parameter
                                                                       PRESENCE optional },
```

```
RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DPC-Mode
                                  CRITICALITY reject
                                                         EXTENSION
                                                                    DPC-Mode
                                                                                   PRESENCE optional } |
    { ID id-Permanent-NAS-UE-Identity
                                                 CRITICALITY ignore
                                                                            EXTENSION Permanent-NAS-UE-Identity
                                                                                                                PRESENCE optional },
    -- RADIO LINK ADDITION REQUEST TDD
__ ********************
RadioLinkAdditionRequestTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkAdditionRequestTDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL,
RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstTDD CRITICALITY reject TYPE RL-Information-RL-AdditionRqstTDD
                                                                                                        PRESENCE mandatory },
RL-Information-RL-AdditionRgstTDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   c-ID
                                  C-ID,
    frameOffset
                                  FrameOffset,
   diversityControlField
                                  DiversityControlField,
   primaryCCPCH-RSCP
                                  PrimaryCCPCH-RSCP
                                                         OPTIONAL,
                                  DL-TimeSlot-ISCP-Info
   dL-TimeSlot-ISCP-Info
                                                        OPTIONAL,
    --for 3.84Mcps TDD only
                                  ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD CRITICALITY reject
                                                                                   EXTENSION
                                                                                               DL-TimeSlot-ISCP-LCR-Information
                                                                                                                                 PRESENCE
optional
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info
                                     CRITICALITY ignore
                                                            EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                                        optional }|
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
     ID id-UL-Synchronisation-Parameters-LCR
                                                     CRITICALITY ignore
                                                                            EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                            PRESENCE
                                                                                                                                       optional
    }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity
                                                                                                                PRESENCE optional } |
                                                 CRITICALITY ignore
                                                                            EXTENSION Permanent-NAS-UE-Identity
```

```
{ ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                                CRITICALITY notify EXTENSION UL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE
optional
   { ID id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD
                                                CRITICALITY notify EXTENSION DL-CCTrCH-InformationList-RL-AdditionRgstTDD PRESENCE
optional },
   . . .
UL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-InformationItemIEs-
RL-AdditionRgstTDD} }
UL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                         CCTrCH-ID,
   uplinkStepSizeLCR
                         TDD-TPC-UplinkStepSize-LCR
                                                  OPTIONAL,
   -- Applicable to 1.28Mcps TDD only
                          ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-InformationItemIEs-
RL-AdditionRqstTDD} }
DL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
   . . .
DL-CCTrCH-InformationItem-RL-AdditionRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                         CCTrCH-ID,
   downlinkStepSize
                         TDD-TPC-DownlinkStepSize OPTIONAL,
                         ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
__ ********************
-- RADIO LINK ADDITION RESPONSE FDD
__ **********************
```

```
RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs
                                    ProtocolIE-Container
                                                                {{RadioLinkAdditionResponseFDD-IEs}},
   protocolExtensions
                                    ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}
                                                                                                                               OPTIONAL,
    . . .
RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseList-RL-AdditionRspFDD
                                                            CRITICALITY ignore TYPE RL-InformationResponseList-RL-AdditionRspFDD
                                                                                                                                       PRESENCE mandatory
    { ID id-CriticalityDiagnostics
                                            CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                   PRESENCE optional },
    . . .
RL-InformationResponseList-RL-AdditionRspFDD
                                                    ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }
RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD
                                                                CRITICALITY ignore TYPE RL-InformationResponseItem-RL-AdditionRspFDD
                                                                                                                                         PRESENCE
mandatory }
RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                                    RL-ID,
   rL-Set-ID
                                    RL-Set-ID,
   uRA-Information
                                    URA-Information
                                                        OPTIONAL,
    sAI
                                    SAI,
                                    GA-Cell
    qA-Cell
                                                OPTIONAL,
                                    GA-AccessPointPosition OPTIONAL,
   gA-AccessPointPosition
    received-total-wide-band-power Received-total-wide-band-power,
    secondary-CCPCH-Info
                                    Secondary-CCPCH-Info
                                                                OPTIONAL,
   dl-CodeInformation
                                    DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication
                                    DiversityIndication-RL-AdditionRspFDD,
       This IE represents both the Divergity Indication IE and the shoige based on the divergity indication as described
      the tabular meggage
                                     subclause 9.1.
    sSDT-SupportIndicator
                                        SSDT-SupportIndicator,
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
   closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power,
   minimumDLTxPower
                                        DL-Power,
   neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
                                        Neighbouring-GSM-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
   pC-Preamble
                                        PC-Preamble,
    sRB-Delay
                                        SRB-Delay,
   primaryCPICH-Power
                                        PrimaryCPICH-Power,
    iE-Extensions
                                        ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
```

```
RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                    PRESENCE optional } |
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                         EXTENSION
                                                                                         DL-PowerBalancing-ActivationIndicator
                                                                                                                                 PRESENCE
optional}|
     ID id-TFCI-PC-SupportIndicator
                                          CRITICALITY ignore EXTENSION TFCI-PC-SupportIndicator
                                                                                                    PRESENCE optional } |
     ID id-HCS-Prio
                              CRITICALITY ignore EXTENSION HCS-Prio
                                                                             PRESENCE optional } |
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                         CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                      PRESENCE
optional },
    . . .
DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}
DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                     PRESENCE mandatory }
DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
                                  Combining-RL-AdditionRspFDD,
    combining
   nonCombining
                                  NonCombining-RL-AdditionRspFDD
Combining-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                          CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                    PRESENCE optional },
NonCombining-RL-AdditionRspFDD ::= SEQUENCE {
   dCH-InformationResponse
                                          DCH-InformationResponse,
                                              ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK ADDITION RESPONSE TDD
```

```
__ *********************
RadioLinkAdditionResponseTDD ::= SEOUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                               {{RadioLinkAdditionResponseTDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}
                                                                                                                            OPTIONAL,
RadioLinkAdditionResponseTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD
                                                           CRITICALITY ignore TYPE RL-InformationResponse-RL-AdditionRspTDD PRESENCE optional }
    --Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                 PRESENCE optional },
    . . .
RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID
                                       RL-ID,
   uRA-Information
                                       URA-Information
                                                           OPTIONAL,
    sAI
                                       SAI,
    gA-Cell
                                       GA-Cell
                                                   OPTIONAL,
    qA-AccessPointPosition
                                       GA-AccessPointPosition OPTIONAL.
   ul-TimeSlot-ISCP-Info
                                       UL-TimeSlot-ISCP-Info,
    minUL-SIR
                                       UL-SIR,
    maxUL-SIR
                                       UL-SIR,
    maximumAllowedULTxPower
                                       MaximumAllowedULTxPower,
    maximumDLTxPower
                                       DL-Power,
    minimumDLTxPower
                                       DL-Power,
    pCCPCH-Power
                                       PCCPCH-Power,
    timingAdvanceApplied
                                       TimingAdvanceApplied,
    alphaValue
                                       AlphaValue,
    ul-PhysCH-SF-Variation
                                       UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                       SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                       Secondary-CCPCH-Info-TDD
                                                                                       OPTIONAL,
    ul-CCTrCHInformation
                                       UL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    dl-CCTrCHInformation
                                       DL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    dCH-Information
                                       DCH-Information-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    dSCH-InformationResponse
                                       DSCH-InformationResponse-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    uSCH-InformationResponse
                                       USCH-InformationResponse-RL-AdditionRspTDD
                                                                                       OPTIONAL,
                                       Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-UMTS-CellInformation
    neighbouring-GSM-CellInformation
                                       Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions
                                       ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
RL-InformationResponse-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                       PRESENCE optional } |
     ID id-GA-CellAdditionalShapes
                                           CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
    { ID id-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                               PRESENCE optional },
    . . .
UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
```

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```
UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD
                                                                                                                                     PRESENCE mandatory
UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD
UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
   ul-DPCH-Information
                                    UL-DPCH-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    uL-Timeslot-Information
                                    UL-Timeslot-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-AdditionRspTDD ::= Protocolie-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD
                                                                                                                                     PRESENCE mandatory
DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD
DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    dl-DPCH-Information
                                    DL-DPCH-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
```

```
DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD
                                                            CRITICALITY ignore
                                                                                    EXTENSION DL-Power
                                                                                                            PRESENCE optional \ -- this is a DCH type
CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD
                                                            CRITICALITY ignore
                                                                                    EXTENSION DL-Power
                                                                                                            PRESENCE optional }, -- this is a DCH type
CCTrCH power
DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    dL-Timeslot-Information
                                    DL-Timeslot-Information,
                                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication
                                        DiversityIndication-RL-AdditionRspTDD,
                                  Divergity Indication IE and the choice based on the divergity indication as described in
                                    ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining
                    Combining-RL-AdditionRspTDD,
    nonCombining
                   NonCombining-RL-AdditionRspTDD
Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID
                                ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
```

```
CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                         CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                  PRESENCE optional },
    . . .
NonCombining-RL-AdditionRspTDD ::= SEQUENCE {
   dCH-InformationResponse
                              DCH-InformationResponse,
                                  ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}
DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD
                                                    CRITICALITY ignore TYPE DSCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                      PRESENCE mandatory }
DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD
DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID
                          DSCH-ID,
    transportFormatManagement TransportFormatManagement,
                                  DSCH-FlowControlInformation,
   dSCH-FlowControlInformation
   diversityIndication
                          DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
                          iE-Extensions
    . . .
DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
                          ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
   iE-Extensions
DiversityIndication-RL-AdditionRspTDD2-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}
```

```
USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD
                                                      CRITICALITY ignore TYPE USCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                         PRESENCE mandatory }
USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD
USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   uSCH-ID
                           USCH-ID,
    transportFormatManagement TransportFormatManagement,
   diversityIndication
                           DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
   iE-Extensions
                           ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD
                                                          CRITICALITY ignore
                                                                                  EXTENSION
                                                                                             RL-LCR-InformationResponse-RL-AdditionRspTDD
    PRESENCE optional },
    --Mandatory for 1.28Mcps TDD only
RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                               RL-ID,
   uRA-Information
                               URA-Information,
   sAI
                               SAI,
    qA-Cell
                               GA-Cell
                                           OPTIONAL,
    gA-AccessPointPosition
                               GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-LCR-Info
                               UL-TimeSlot-ISCP-LCR-Info,
   maxUL-SIR
                               UL-SIR,
   minUL-SIR
                               UL-SIR,
   pCCPCH-Power
                               PCCPCH-Power,
    maximumAllowedULTxPower
                               MaximumAllowedULTxPower,
    maximumDLTxPower
                               DL-Power,
   minimumDLTxPower
                               DL-Power,
    alphaValue
                               AlphaValue,
   ul-PhysCH-SF-Variation
                               UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                       SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                       Secondary-LCR-CCPCH-Info-TDD
                                                                                         OPTIONAL,
   ul-CCTrCH-LCR-Information
                                       UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
                                       DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
    dl-CCTrCH-LCR-Information
                                                                                         OPTIONAL,
   dCH-InformationResponse
                                       DCH-InformationResponseList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
    dsch-LCR-InformationResponse
                                       DSCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                         OPTIONAL,
   usch-LCR-InformationResponse
                                           USCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                            OPTIONAL,
   neighbouring-UMTS-CellInformation
                                              Neighbouring-UMTS-CellInformation
                                                                                             OPTIONAL,
   neighbouring-GSM-CellInformation
                                              Neighbouring-GSM-CellInformation
                                                                                           OPTIONAL,
    iE-Extensions
                                              OPTIONAL.
```

```
RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes
                                     CRITICALITY ignore EXTENSION GA-CellAdditionalShapes PRESENCE optional }
    { ID id-UL-TimingAdvanceCtrl-LCR
                                     CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                              PRESENCE optional },
   --Mandatory for 1.28Mcps TDD only
UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}
UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID.
                                     UL-DPCH-LCR-InformationList-RL-AdditionRspTDD
   ul-DPCH-LCR-Information
                                                                                      OPTIONAL,
                                 ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                           CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   uL-TimeslotLCR-Information
                                 UL-TimeslotLCR-Information,
                                 ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}
```

```
DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEOUENCE {
                             CCTrCH-ID,
   cCTrCH-ID
   dl-DPCH-LCR-Information
                             DL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                            OPTIONAL,
                             ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} } }
DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                          CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod,
   repetitionLength
                                RepetitionLength,
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   dL-TimeslotLCR-Information
                                DL-TimeslotLCR-Information,
   tSTD-Indicator
                                TSTD-Indicator,
   iE-Extensions
                                ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}
DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}
DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                          CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
```

```
DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD
DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID
                          DSCH-ID,
   dSCH-FlowControlInformation
                                  DSCH-FlowControlInformation.
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress
                                                 OPTIONAL,
    transportFormatManagement TransportFormatManagement,
    iE-Extensions
                          ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}
USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                             CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD
USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   usch-ID
                              USCH-ID,
   transportFormatManagement TransportFormatManagement,
    diversityIndication
                              DiversityIndication-RL-AdditionRspTDD2
    iE-Extensions
                              ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ***************
-- RADIO LINK ADDITION FAILURE FDD
  ************************
RadioLinkAdditionFailureFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkAdditionFailureFDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}
                                                                                                                       OPTIONAL,
```

```
RadioLinkAdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD
                                                                CRITICALITY
                                                                                 ignore
                                                                                                  TYPE CauseLevel-RL-AdditionFailureFDD
    PRESENCE
               mandatory }|
    { ID id-CriticalityDiagnostics
                                            CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                  PRESENCE optional },
    . . .
CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause
                        GeneralCauseList-RL-AdditionFailureFDD,
   rLSpecificCause
                        RLSpecificCauseList-RL-AdditionFailureFDD,
GeneralCauseList-RL-AdditionFailureFDD ::= SEOUENCE {
    cause
    iE-Extensions
                                                ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                      OPTIONAL,
    . . .
GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                         OPTIONAL,
    . . .
RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                       CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD
                        PRESENCE mandatory
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
                                    RL-ID,
    cause
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Successful RL-Information Response List-RL-Addition Failure FDD ::= SEOUENCE (SIZE (0..maxNrOfRLs-2)) OF Protocol IE-Single-Container { {Successful RL-
InformationResponse-RL-AdditionFailureFDD-IEs} }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                        CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
        PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID
                                        RL-ID,
    rL-Set-ID
                                        RL-Set-ID,
   uRA-Information
                                        URA-Information
                                                            OPTIONAL.
                                        SAI,
    SAT
    qA-Cell
                                        GA-Cell
                                                    OPTIONAL,
                                        GA-AccessPointPosition
    gA-AccessPointPosition
                                                                    OPTIONAL,
                                        Received-total-wide-band-power,
    received-total-wide-band-power
    secondary-CCPCH-Info
                                        Secondary-CCPCH-Info
                                                                    OPTIONAL,
    dl-CodeInformation
                                        DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication
                                        DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator
                                        SSDT-SupportIndicator,
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
    closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
                                        MaximumAllowedULTxPower,
    maximumAllowedULTxPower
    maximumDLTxPower
                                        DL-Power,
    minimumDLTxPower
                                        DL-Power,
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
    primaryCPICH-Power
                                        PrimaryCPICH-Power,
                                        PC-Preamble,
    pC-Preamble
    sRB-Delay
                                        SRB-Delay,
                                        ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-GA-CellAdditionalShapes
                                                    CRITICALITY ignore EXTENSION
                                                                                    GA-CellAdditionalShapes
                                                                                                                 PRESENCE optional } |
      ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore EXTENSION
                                                                                    DL-PowerBalancing-ActivationIndicator PRESENCE optional | |
      ID id-TFCI-PC-SupportIndicator
                                                    CRITICALITY ignore EXTENSION
                                                                                    TFCI-PC-SupportIndicator
                                                                                                                 PRESENCE optional } |
     ID id-HCS-Prio
                                                    CRITICALITY ignore EXTENSION
                                                                                    HCS-Prio
                                                                                                  PRESENCE optional }
     ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                            CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                            PRESENCE
optional },
    . . .
DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}
```

```
DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                             PRESENCE mandatory }
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
   combining
                               Combining-RL-AdditionFailureFDD,
   nonCombining
                               NonCombining-RL-AdditionFailureFDD
Combining-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
   iE-Extensions
                            ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DCH-InformationResponse
                                      CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                          PRESENCE optional },
NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                           DCH-InformationResponse,
   iE-Extensions
                                          ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ******************
-- RADIO LINK ADDITION FAILURE TDD
__ ********************
RadioLinkAdditionFailureTDD ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{RadioLinkAdditionFailureTDD-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}
                                                                                                             OPTIONAL,
RadioLinkAdditionFailureTDD-IES RNSAP-PROTOCOL-IES ::= {
     { ID id-CriticalityDiagnostics
                                  CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                     PRESENCE optional },
```

```
CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause
                      GeneralCauseList-RL-AdditionFailureTDD,
   rLSpecificCause
                      RLSpecificCauseList-RL-AdditionFailureTDD,
    . . .
GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
                              ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }
   iE-Extensions
                                                                                                             OPTIONAL,
GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD
                                                            Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
                                                            iE-Extensions
   OPTIONAL,
    . . .
RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
          id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD
                                                                     CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD PRESENCE mandatory}
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   cause
                              Cause,
   iE-Extensions
                              ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
__ *********************
-- RADIO LINK DELETION REQUEST
  *****************
RadioLinkDeletionRequest ::= SEQUENCE {
                                                      {{RadioLinkDeletionRequest-IEs}},
   protocolIEs
                              ProtocolIE-Container
   protocolExtensions
                              ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}
                                                                                                        OPTIONAL,
RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory },
                                     ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRgst-IEs} }
RL-InformationList-RL-DeletionRqst
RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-DeletionRqst
                                         CRITICALITY notify TYPE RL-Information-RL-DeletionRgst PRESENCE mandatory
RL-Information-RL-DeletionRqst ::= SEQUENCE {
   rL-ID
   iE-Extensions
                           ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK DELETION RESPONSE
  *************************
RadioLinkDeletionResponse ::= SEQUENCE {
                              ProtocolIE-Container
                                                      {{RadioLinkDeletionResponse-IEs}},
   protocolIEs
                              ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}
   protocolExtensions
                                                                                                        OPTIONAL,
RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-CriticalityDiagnostics
                                     CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                    PRESENCE optional },
```

```
RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  RADIO LINK RECONFIGURATION PREPARE FDD
   *************
RadioLinkReconfigurationPrepareFDD ::= SEOUENCE {
                                                              {{RadioLinkReconfigurationPrepareFDD-IEs}},
                                  ProtocolIE-Container
   protocolIEs
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
                                                                                                                                OPTIONAL,
    . . .
RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedOueuingTime
                                      CRITICALITY reject TYPE AllowedOueuingTime
                                                                                             PRESENCE optional }
     ID id-UL-DPCH-Information-RL-ReconfPrepFDD
                                                          CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                            PRESENCE optional }
                                                          CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                            PRESENCE optional }
     ID id-DL-DPCH-Information-RL-ReconfPrepFDD
     ID id-FDD-DCHs-to-Modify
                               CRITICALITY reject TYPE FDD-DCHs-to-Modify
                                                                                 PRESENCE optional
     ID id-DCHs-to-Add-FDD
                              CRITICALITY reject TYPE DCH-FDD-Information
                                                                                 PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepFDD
                                                                                                          PRESENCE optional }
     ID id-DSCH-Modify-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DSCH-Modify-RL-ReconfPrepFDD
                                                                                                        PRESENCE optional } |
                                                                                             PRESENCE optional } |
     ID id-DSCHs-to-Add-FDD
                                      CRITICALITY reject TYPE DSCH-FDD-Information
                                                                                                        PRESENCE optional }
     ID id-DSCH-Delete-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DSCH-Delete-RL-ReconfPrepFDD
     ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject TYPE RL-InformationList-RL-ReconfPrepFDD PRESENCE optional }
     ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional },
UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
   ul-ScramblingCode
                                   UL-ScramblingCode
                                                          OPTIONAL,
   ul-SIRTarget
                                   UL-SIR
                                                          OPTIONAL,
   minUL-ChannelisationCodeLength MinUL-ChannelisationCodeLength OPTIONAL,
   maxNrOfUL-DPDCHs
                                   MaxNrOfUL-DPCHs
                                                          OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
   ul-PunctureLimit
                                   PunctureLimit
                                                          OPTIONAL,
   t.FCS
                                   TFCS
                                         OPTIONAL,
   ul-DPCCH-SlotFormat
                                                          OPTIONAL,
                                   UL-DPCCH-SlotFormat
   diversityMode
                                   DiversityMode
                                                          OPTIONAL,
    sSDT-CellIDLength
                                   SSDT-CellID-Length
                                                          OPTIONAL,
   s-FieldLength
                                   S-FieldLength
                                                          OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
   t FCS
                                         OPTIONAL,
   dl-DPCH-SlotFormat
                                 DL-DPCH-SlotFormat
                                                        OPTIONAL,
   nrOfDLchannelisationcodes
                                 NrOfDLchannelisationcodes OPTIONAL,
   tFCI-SignallingMode
                                 TFCI-SignallingMode
                                                        OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
                                                        OPTIONAL
   -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
   multiplexingPosition
                                 MultiplexingPosition
                                                            OPTIONAL,
   limitedPowerIncrease
                                 LimitedPowerIncrease
                                                            OPTIONAL,
                                 ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-SplitType CRITICALITY reject EXTENSION SplitType PRESENCE optional }
    DCH-DeleteList-RL-ReconfPrepFDD
                                        ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD
DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   dCH-ID
                                 DCH-ID,
                                 ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
   dSCH-Information
                                     DSCH-ModifyInfo-RL-ReconfPrepFDD OPTIONAL,
   pdSCH-RL-ID
                                     RL-ID
                                                                OPTIONAL,
   t.FCS
                                     TFCS
                                                                OPTIONAL,
                                     ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DSCH-Modify-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EnhancedDSCHPCIndicator
                                         CRITICALITY ignore EXTENSION EnhancedDSCHPCIndicator PRESENCE optional}
    { ID id-EnhancedDSCHPC
                                         CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                     PRESENCE conditional },
    -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
DSCH-ModifyInfo-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyInformationItem-RL-ReconfPrepFDD
```

```
DSCH-ModifyInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dsch-ID
                                        DSCH-ID,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
   bLER
                                        BLER
                                                                        OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL.
DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID
                                                                                                 PRESENCE
                                                                                                                     optional } |
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                                TransportLayerAddress
                                                                                                                       optional },
                                                                    EXTENSION
                                                                                                            PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-Delete-RL-ReconfPrepFDD ::= SEQUENCE {
                                        DSCH-Info-Delete-RL-ReconfPrepFDD,
    dSCH-Information
                                        ProtocolExtensionContainer { {DSCH-Delete-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-Delete-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Info-Delete-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-DeleteInformationItem-RL-REconfPrepFDD
DSCH-DeleteInformationItem-RL-REconfPrepFDD ::= SEQUENCE {
    dSCH-ID
                                        DSCH-ID,
                                    ProtocolExtensionContainer { {DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-ReconfPrepFDD
                                            ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-ReconfPrepFDD-IEs}
RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD
                                                CRITICALITY reject TYPE RL-Information-RL-ReconfPrepFDD
                                                                                                              PRESENCE mandatory }
RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
```

```
rL-ID
   sSDT-Indication
                              SSDT-Indication
                                               OPTIONAL,
   sSDT-CellIdentity
                              SSDT-CellID
                                           OPTIONAL
   -- The IE shall be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
   transmitDiversitvIndicator
                              TransmitDiversitvIndicator
                                                         OPTIONAL,
   -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
   iE-Extensions
                              ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-SSDT-CellIDforEDSCHPC
                                        CRITICALITY ignore EXTENSION SSDT-CellID
                                                                                  PRESENCE conditional } |
   -- This IE shall be present if Enhanced DSCH PC IE is present in either the DSCHs to Modify IE or the DSCHs to Add IE.
    ID id-DLReferencePower
                                        CRITICALITY ignore EXTENSION DL-Power
                                                                                     PRESENCE optional }
    ID id-RL-Specific-DCH-Info
                                        CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE optional }
   ID id-DL-DPCH-TimingAdjustment
                                        CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment PRESENCE optional }
    ID id-Oth-Parameter
                                        CRITICALITY ignore EXTENSION Qth-Parameter
                                                                                  PRESENCE optional } |
   . . .
RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-Information-to-Modify
                                                      CRITICALITY reject EXTENSION HSDSCH-Information-to-Modify PRESENCE optional
     ID id-HSDSCH-FDD-Information-to-Add
                                                      CRITICALITY reject EXTENSION HSDSCH-FDD-Information
                                                                                                         PRESENCE optional }
     ID id-HSDSCH-FDD-Information-to-Delete
                                                      CRITICALITY reject EXTENSION HSDSCH-DeleteList-RL-ReconfPrepFDD PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                                      CRITICALITY reject EXTENSION RL-ID PRESENCE optional \|
    ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
   PRESENCE optional } |
   Channel-Estimation-Of-HS-DSCH PRESENCE optional },
HSDSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepFDD
HSDSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                            HSDSCH-MACdFlow-ID,
   iE-Extensions
                                            ProtocolExtensionContainer { { HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK RECONFIGURATION PREPARE TDD
  *****************
```

```
RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                               {{RadioLinkReconfigurationPrepareTDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}
                                                                                                                                  OPTIONAL,
RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                       CRITICALITY reject TYPE AllowedQueuingTime
                                                                                               PRESENCE optional } |
     ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                           CRITICALITY notify TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional }
    ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
optional } |
     ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                           CRITICALITY notify TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional }
     ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional
     ID id-TDD-DCHs-to-Modify
                                   CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                                   PRESENCE optional
     ID id-DCHs-to-Add-TDD
                               CRITICALITY reject TYPE DCH-TDD-Information
                                                                                   PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional } |
     ID id-DSCH-ModifyList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DSCH-ModifyList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional }
     ID id-DSCHs-to-Add-TDD
                                   CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                           PRESENCE optional } |
     ID id-DSCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DSCH-DeleteList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional
                                                                                                             PRESENCE optional }
     ID id-USCH-ModifyList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE USCH-ModifyList-RL-ReconfPrepTDD
     ID id-USCHs-to-Add
                               CRITICALITY reject TYPE USCH-Information
                                                                                   PRESENCE optional } |
     ID id-USCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE USCH-DeleteList-RL-ReconfPrepTDD
                                                                                                             PRESENCE optional },
    . . .
UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                   ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-AddInformation-
RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-AddInformation-RL-ReconfPrepTDD PRESENCE mandatory
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD ::= SEQUENCE {
                               CCTrCH-ID,
    cCTrCH-ID
    tFCS
                               TFCS,
    tFCI-Coding
                               TFCI-Coding,
    punctureLimit
                                   PunctureLimit,
                                   ProtocolExtensionContainer { {UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-UL-SIRTarget
                               CRITICALITY reject
                                                       EXTENSION
                                                                                   PRESENCE optional | |
    -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
```

```
UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                     ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD PRESENCE mandatory
}
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
    tFCS
                               TFCS
                                           OPTIONAL,
    tFCI-Coding
                               TFCI-Coding
                                                       OPTIONAL,
   punctureLimit
                                 PunctureLimit
                                                               OPTIONAL,
                                   ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget
                               CRITICALITY reject
                                                       EXTENSION
                                                                                   PRESENCE optional |
    -- This IE shall be applicable for 1.28Mcps TDD only.
    { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR
                                                                                                                                      PRESENCE
    optional },
    -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                       ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD PRESENCE mandatory
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ::= SEQUENCE {
                               CCTrCH-ID,
    cCTrCH-ID
    iE-Extensions
                                   ProtocolExtensionContainer { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-AddInformation-
RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
ID id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD CRITICALITY notify TYPE DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDDPRESENCE mandatory
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEOUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   tFCS
                             TFCS,
   tFCI-Coding
                             TFCI-Coding,
   punctureLimit
                                 PunctureLimit,
   cCTrCH-TPCList
                                 CCTrCH-TPCAddList-RL-ReconfPrepTDD OPTIONAL,
                                 ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional },
    . . .
CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD
CCTrCH-TPCAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                                 CCTrCH-ID,
                                 ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                   ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
    mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   t.FCS
                             TFCS
                                        OPTIONAL.
   tFCI-Coding
                             TFCI-Coding
                                                    OPTIONAL,
   punctureLimit
                                 PunctureLimit
                                                           OPTIONAL,
                                 CCTrCH-TPCModifyList-RL-ReconfPrepTDD
   cCTrCH-TPCList
                                                                          OPTIONAL,
                                 ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
optional }.
   . . .
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
                              ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                             ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
DeleteInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
                          CCTrCH-ID,
   cCTrCH-ID
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepTDD
                                    ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   dCH-ID
   iE-Extensions
                          ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DSCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD
DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   dscH-ID
                                 DSCH-ID.
```

```
dl-ccTrCHID
                                        CCTrCH-ID
                                                                         OPTIONAL.
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                         OPTIONAL,
   allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                         OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                         OPTIONAL,
   bLER
                                        BLER
                                                                         OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
                                    ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                     EXTENSION
                                                                                 BindingID
                                                                                                           PRESENCE
                                                                                                                     optional } |
    -- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                     EXTENSION
                                                                                 TransportLayerAddress
                                                                                                            PRESENCE
                                                                                                                        optional },
    -- Shall be ignored if bearer establishment with ALCAP.
DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD
DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID
    iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD
USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   uSCH-ID
                                        USCH-ID,
   ul-ccTrCHID
                                        CCTrCH-ID
                                                                         OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                         OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                         OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                         OPTIONAL,
   bler
                                        BLER
                                                                         OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    rb-Info
                                        RB-Info
                                                                         OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional } |
     ID id-BindingID
                                            CRITICALITY ignore
                                                                                                           PRESENCE
                                                                                                                        optional }|
                                                                     EXTENSION
                                                                                 BindingID
```

```
-- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                       CRITICALITY ignore
                                                              EXTENSION
                                                                         TransportLayerAddress
                                                                                                  PRESENCE
                                                                                                            optional },
   -- Shall be ignored if bearer establishment with ALCAP.
USCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-DeleteItem-RL-ReconfPrepTDD
USCH-DeleteItem-RL-ReconfPrepTDD ::= SEOUENCE {
   uSCH-ID
                                 ProtocolExtensionContainer { {USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
                                                                  EXTENSION PrimaryCCPCH-RSCP PRESENCE optional } |
     ID id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD CRITICALITY ignore
                                                                                DL-TimeSlot-ISCP-Info PRESENCE optional } |
     ID id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD CRITICALITY ignore
                                                                     EXTENSION
     ID id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD CRITICALITY ignore
                                                                                EXTENSION DL-TimeSlot-ISCP-LCR-Information PRESENCE optional
     ID id-HSDSCH-Information-to-Modify
                                               CRITICALITY reject
                                                                     EXTENSION HSDSCH-Information-to-Modify
                                                                                                             PRESENCE optional } |
     ID id-HSDSCH-TDD-Information-to-Add
                                            CRITICALITY reject
                                                                  EXTENSION HSDSCH-TDD-Information
                                                                                                               PRESENCE optional }
     ID id-HSDSCH-TDD-Information-to-Delete
                                               CRITICALITY reject
                                                                     EXTENSION HSDSCH-DeleteList-RL-ReconfPrepTDD PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                            CRITICALITY reject
                                                                  EXTENSION RL-ID
                                                                                            PRESENCE optional |
     ID id-PDSCH-RL-ID
                                CRITICALITY ignore
                                                          EXTENSION RL-ID
                                                                             PRESENCE optional }
     ID id-UL-Synchronisation-Parameters-LCR
                                                                         EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                                  optional
                                                   CRITICALITY ignore
                                                                                                                       PRESENCE
   }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
HSDSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepTDD
HSDSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                               HSDSCH-MACdFlow-ID,
   iE-Extensions
                                               OPTIONAL,
HSDSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK RECONFIGURATION READY FDD
  *****************
```

```
RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkReconfigurationReadvFDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}
                                                                                                                              OPTIONAL,
RadioLinkReconfigurationReadyFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseList-RL-ReconfReadyFDD
                                                          CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfReadyFDD
                                                                                                                                  PRESENCE optional
     ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
RL-InformationResponseList-RL-ReconfReadyFDD
                                                   ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfReadyFDD-IEs} }
RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseItem-RL-ReconfReadyFDD
                                                          CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfReadyFDD
                                                                                                                                  PRESENCE mandatory
RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
                                   RL-ID,
    max-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
   min-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
    maximumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
   minimumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
    secondary-CCPCH-Info
                                   Secondary-CCPCH-Info
                                                              OPTIONAL,
   dl-CodeInformationList
                                   DL-CodeInformationList-RL-ReconfReadyFDD
                                                                              OPTIONAL,
    dCHInformationResponse
                                   DCH-InformationResponseList-RL-ReconfReadyFDD
                                                                                  OPTIONAL,
    dSCHsToBeAddedOrModified
                                   DSCHsToBeAddedOrModified-RL-ReconfReadyFDD
                                                                                  OPTIONAL,
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    . . .
RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DL-PowerBalancing-UpdatedIndicator
                                                      CRITICALITY ignore EXTENSION DL-PowerBalancing-UpdatedIndicator
                                                                                                                         PRESENCE optional } |
     ID id-HSDSCH-FDD-Information-Response
                                                      CRITICALITY ignore EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                             PRESENCE optional | |
     ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation PRESENCE optional }
     ID id-Secondary-CPICH-Information-Change
                                                      CRITICALITY ignore EXTENSION Secondary-CPICH-Information-Change
                                                                                                                               PRESENCE optional },
    . . .
DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}
DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DCH-InformationResponseList-RL-ReconfReadyFDD
                                                          ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }
```

```
DCH-InformationResponseListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse
                                      CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                            PRESENCE mandatory }
DSCHsToBeAddedOrModified-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container { {DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD} }
DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCHsToBeAddedOrModified-FDD
                                         CRITICALITY ignore TYPE DSCH-FDD-InformationResponse
                                                                                                 PRESENCE mandatory }
RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-RNTI
                                  CRITICALITY ignore
                                                                                     PRESENCE optional } |
                                                             EXTENSION DSCH-RNTI
     ID id-HSDSCH-RNTI
                              CRITICALITY reject
                                                     EXTENSION HSDSCH-RNTI
                                                                                            PRESENCE optional } |
    { ID id-MAChs-ResetIndicator
                                  CRITICALITY reject
                                                         EXTENSION MAChs-ResetIndicator
                                                                                                   PRESENCE optional },
        -- RADIO LINK RECONFIGURATION READY TDD
   ****************
RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
                                                             {{RadioLinkReconfigurationReadyTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}
                                                                                                                            OPTIONAL,
RadioLinkReconfigurationReadyTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                          CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfReadyTDD
                                                                                            PRESENCE optional
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   max-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
                                  DL-Power
                                                  OPTIONAL,
   maximumDLTxPower
   minimumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
   secondary-CCPCH-Info-TDD
                                  Secondary-CCPCH-Info-TDD
                                                             OPTIONAL,
   ul-CCTrCH-Information
                                  UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                                                 OPTIONAL.
                                  DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
    dl-CCTrCH-Information
   dCHInformationResponse
                                  DCH-InformationResponseList-RL-ReconfReadyTDD
                                                                                OPTIONAL,
   dSCHsToBeAddedOrModified
                                  DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                            OPTIONAL,
   uSCHsToBeAddedOrModified
                                  USCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                             OPTIONAL,
    iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
```

```
RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-TDD-Information-Response
                                             CRITICALITY ignore EXTENSION HSDSCH-TDD-Information-Response
                                                                                                          PRESENCE optional |
    { ID id-UL-TimingAdvanceCtrl-LCR
                                             CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                                        PRESENCE optional },
    --For 1.28Mcps TDD only
UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                 ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory
UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                                  CCTrCH-ID,
   ul-DPCH-AddInformation
                                  UL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                       OPTIONAL,
   --For 3.84Mcps TDD only
   ul-DPCH-ModifyInformation
                                  UL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                           OPTIONAL.
    --For 3.84Mcps TDD only
   ul-DPCH-DeleteInformation
                                  UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                           OPTIONAL,
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                    EXTENSION
                                                                                               UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD
    PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
   tDD-DPCHOffset
                                  TDD-DPCHOffset,
    uL-TimeslotLCR-Info
                                  UL-TimeslotLCR-Information,
                                  ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
```

```
ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD
                                                      CRITICALITY ignore TYPE UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD
                                                                                                                             PRESENCE
optional }
UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEOUENCE {
   repetitionPeriod
                                RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   rxTimingDeviationForTA
                                RxTimingDeviationForTA
                                                              OPTIONAL,
   uL-Timeslot-Information
                                UL-Timeslot-Information,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod
                                                          OPTIONAL,
   repetitionLength
                                 RepetitionLength
                                                          OPTIONAL,
   tDD-DPCHOffset
                                TDD-DPCHOffset
                                                          OPTIONAL,
   uL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                          UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                               OPTIONAL,
   --For 3.84Mcps TDD only
                                 ProtocolExtensionContainer { {UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    EXTENSION UL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                  PRESENCE optional },
   --For 1.28Mcps TDD only
    . . .
UL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   timeSlotLCR
                                TimeSlotLCR,
   midambleShiftLCR
                                MidambleShiftLCR
                                                          OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
                                                       OPTIONAL,
   tDD-uL-Code-LCR-Information
                                    TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                            OPTIONAL,
                                 ProtocolExtensionContainer { {UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
```

```
TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                                  DPCH-ID.
   tDD-ChannelisationCodeLCR
                                      TDD-ChannelisationCodeLCR
                                                                     OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL.
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR PRESENCE
optional},
    . . .
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   timeSlot
                                  TimeSlot,
                                              MidambleShiftAndBurstType
   midambleShiftAndBurstType
                                                                                 OPTIONAL.
   tFCI-Presence
                                  TFCI-Presence
                                                         OPTIONAL,
                              TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD
   uL-Code-Information
                                                                                        OPTIONAL,
                                  ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                                  DPCH-ID,
    tDD-ChannelisationCode
                                  TDD-ChannelisationCode
                                                             OPTIONAL.
                                  ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
```

```
UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
UL-DPCH-InformationDeleteItem-RL-ReconfReadvTDD ::= SEOUENCE {
   dPCH-ID
                            DPCH-ID,
                                ProtocolExtensionContainer { {UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                              ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}
DL-CCTrCH-InformationList-RL-ReconfReadyTDD
DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                                CCTrCH-ID,
   dl-DPCH-AddInformation
                                DL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                  OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-ModifyInformation
                                DL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                  OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-DeleteInformation
                                DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                  OPTIONAL,
                                ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                  EXTENSION
                                                                                             DL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD
                 PRESENCE optional |
   --For 1.28Mcps TDD only
   { ID id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD
                                                     CRITICALITY ignore EXTENSION DL-Power
                                                                                                       PRESENCE optional } |
   -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
   { ID id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD
                                                                                                       PRESENCE optional },
                                                     CRITICALITY ignore EXTENSION DL-Power
   -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
   . . .
DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod,
```

```
repetitionLength
                                RepetitionLength,
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   dL-TimeslotLCR-Info
                                DL-TimeslotLCR-Information,
   iE-Extensions
                                ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   . . .
DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationAddListIEs-RL-ReconfReadvTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                               RepetitionPeriod,
   repetitionLength
                               RepetitionLength,
   tDD-DPCHOffset
                               TDD-DPCHOffset,
   dL-Timeslot-Information
                               DL-Timeslot-Information,
                                ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE
   repetitionPeriod
                                RepetitionPeriod
                                                        OPTIONAL,
   repetitionLength
                                RepetitionLength
                                                        OPTIONAL,
   tDD-DPCHOffset
                                TDD-DPCHOffset
                                                        OPTIONAL,
   dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                        DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                           OPTIONAL,
   --For 3.84Mcps TDD only
                                ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                 EXTENSION DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                 PRESENCE optional },
```

```
--For 1.28Mcps TDD only
DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                                OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    tDD-dL-Code-LCR-Information
                                    TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                                  OPTIONAL,
                                    ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID.
    tDD-ChannelisationCodeLCR
                                    TDD-ChannelisationCodeLCR
                                                                    OPTIONAL.
                                    ProtocolExtensionContainer { {TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD CRITICALITY ignore EXTENSION
                                                                                                                    DL-Power
                                                                                                                                PRESENCE optional }
     ID id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD CRITICALITY ignore EXTENSION
                                                                                                                                PRESENCE optional },
                                                                                                                    DL-Power
    . . .
DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType
                                                                        OPTIONAL,
    tFCI-Presence
                                                            OPTIONAL,
                                    TFCI-Presence
    dL-Code-Information
                                    TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                                OPTIONAL.
                                    ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD
```

```
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                               DPCH-ID,
   tDD-ChannelisationCode
                               TDD-ChannelisationCode
                                                        OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL.
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   PRESENCE
optional},
   . . .
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                           DPCH-ID,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                    ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }
DCH-InformationResponseList-RL-ReconfReadyTDD
DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DCH-InformationResponse
                                  CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                    PRESENCE mandatory
DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                             ::= ProtocolIE-Single-Container { {DSCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }
DSCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD CRITICALITY ignore TYPE DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD
                                                                                                                     PRESENCE mandatory
DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
                        DSCH-ID,
   transportFormatManagement TransportFormatManagement,
```

```
dSCH-FlowControlInformation DSCH-FlowControlInformation,
   bindingID
                          BindingID OPTIONAL,
   transportLaverAddress TransportLaverAddress
                                                  OPTIONAL,
   iE-Extensions
                          ProtocolExtensionContainer { {DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                  ::= ProtocolIE-Single-Container { { USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }
}USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
     ID id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD CRITICALITY ignore TYPE USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD
                                                                                                                                PRESENCE mandatory
USCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
   uSCH-ID
                           USCH-ID.
   transportFormatManagement TransportFormatManagement,
   bindingID
                          BindingID OPTIONAL,
   transportLayerAddress
                          TransportLayerAddress
                                                 OPTIONAL,
                          ProtocolExtensionContainer { { USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    EXTENSION RL-ReconfigurationReadyTDD-RL-Information
                                                                                                                                   PRESENCE
   optional } |
     ID id-HSDSCH-RNTI
                              CRITICALITY reject
                                                      EXTENSION HSDSCH-RNTI
                                                                                             PRESENCE optional } |
     ID id-DSCH-RNTI
                                  CRITICALITY ignore
                                                             EXTENSION DSCH-RNTI
                                                                                     PRESENCE optional } |
    { ID id-MAChs-ResetIndicator
                                  CRITICALITY reject
                                                          EXTENSION MAChs-ResetIndicator
                                                                                                    PRESENCE optional },
RL-ReconfigurationReadyTDD-RL-Information ::= SEQUENCE {
   rL-ID
                          RL-ID,
   rL-Specific-DCH-Info
                          RL-Specific-DCH-Info OPTIONAL,
                          ProtocolExtensionContainer { { RL-ReconfigurationReadyTDD-RL-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationReadyTDD-RL-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
************
-- RADIO LINK RECONFIGURATION COMMIT
  ******************
RadioLinkReconfigurationCommit ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                        {{RadioLinkReconfigurationCommit-IEs}},
                                ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}
   protocolExtensions
                                                                                                                 OPTIONAL,
RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
                            CRITICALITY ignore TYPE CFN
                                                                       PRESENCE mandatory } |
                                              CRITICALITY ignore TYPE Active-Pattern-Sequence-Information PRESENCE optional },--FDD only
   { ID id-Active-Pattern-Sequence-Information
   . . .
RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RADIO LINK RECONFIGURATION FAILURE
  *****************
RadioLinkReconfigurationFailure ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                        {{RadioLinkReconfigurationFailure-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
                                                                                                                  OPTIONAL,
   . . .
RadioLinkReconfigurationFailure-IES RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-ReconfFailure
                                      CRITICALITY ignore TYPE CauseLevel-RL-Reconffailure PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
CauseLevel-RL-ReconfFailure ::= CHOICE {
                     GeneralCauseList-RL-ReconfFailure,
   generalCause
   rLSpecificCause
                     RLSpecificCauseList-RL-ReconfFailure,
GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
                                           Cause,
   iE-Extensions
                                           ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }
                                                                                                                    OPTIONAL,
```

```
GeneralCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
   rL-ReconfigurationFailureList-RL-ReconfFailure
                                                   RL-ReconfigurationFailureList-RL-ReconfFailure
   iE-Extensions
                                                   OPTIONAL,
RLSpecificCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-ReconfigurationFailureList-RL-Reconffailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }
RL-ReconfigurationFailure-RL-ReconfFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore TYPE RL-ReconfigurationFailure-RL-ReconfFail PRESENCE mandatory
RL-ReconfigurationFailure-RL-ReconfFail ::= SEOUENCE {
                             RL-ID,
   cause
                                 ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     *****************
-- RADIO LINK RECONFIGURATION CANCEL
RadioLinkReconfigurationCancel ::= SEQUENCE {
                                                          {{RadioLinkReconfigurationCancel-IEs}},
   protocolIEs
                                 ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
                                                                                                                     OPTIONAL,
RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
```

```
RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ******************
-- RADIO LINK RECONFIGURATION REQUEST FDD
  *************
RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
                                                       {{RadioLinkReconfigurationRequestFDD-IEs}},
                               ProtocolIE-Container
   protocolIEs
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
                                                                                                                   OPTIONAL,
RadioLinkReconfigurationRequestFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime CRITICALITY reject TYPE AllowedQueuingTime
                                                                                    PRESENCE optional } |
                                            CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfRqstFDDPRESENCE optional }
     ID id-UL-DPCH-Information-RL-ReconfRqstFDD
     ID id-DL-DPCH-Information-RL-ReconfRqstFDD
                                                    CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfRqstFDDPRESENCE optional }
     ID id-FDD-DCHs-to-Modify CRITICALITY reject TYPE FDD-DCHs-to-Modify
                                                                         PRESENCE optional
                                                                         PRESENCE optional
     ID id-DCHs-to-Add-FDD CRITICALITY reject TYPE DCH-FDD-Information
     PRESENCE optional } |
   { ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional },
   . . .
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
   t.FCS
                               TFCS OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
   t.FCS
                               TFCS OPTIONAL,
   tFCI-SignallingMode
                               TFCI-SignallingMode OPTIONAL,
   limitedPowerIncrease
                               LimitedPowerIncrease OPTIONAL,
                               ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DCH-DeleteList-RL-ReconfRqstFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore EXTENSION RL-ReconfigurationRequestFDD-RL-InformationList
                                                                                                                                       PRESENCE
    optional}|
    { ID id-DL-ReferencePowerInformation
                                                        CRITICALITY ignore EXTENSION DL-ReferencePowerInformation
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                            CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation
                      PRESENCE optional | |
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation-Of-HS-DSCH
                                  PRESENCE optional },
RL-ReconfigurationRequestFDD-RL-InformationList ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }
RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
     ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE optional
RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
                          RL-ID,
    rL-Specific-DCH-Info
                          RL-Specific-DCH-Info OPTIONAL,
                          ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      -- RADIO LINK RECONFIGURATION REQUEST TDD
  *****************
RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkReconfigurationRequestTDD-IEs}},
```

```
protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}
                                                                                                                   OPTIONAL.
RadioLinkReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                   CRITICALITY reject TYPE AllowedQueuingTime
                                                                                    PRESENCE optional } |
    ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                        CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional } |
   { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD
                                                        CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD PRESENCE
optional } |
   { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                        CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional
   { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                        CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD PRESENCE
optional } |
     ID id-TDD-DCHs-to-Modify
                               CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                         PRESENCE optional
     ID id-DCHs-to-Add-TDD
                            CRITICALITY reject TYPE DCH-TDD-Information
                                                                         PRESENCE optional
                                          CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstTDD
   { ID id-DCH-DeleteList-RL-ReconfRqstTDD
                                                                                                PRESENCE optional },
UL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD
                                                 ::= SEQUENCE (SIZE (0..maxNrofCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   t.FCS
                                      OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
   { ID id-UL-SIRTarget
                         CRITICALITY reject
                                               EXTENSION
                                                             UL-SIR
                                                                       PRESENCE optional
   -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                 ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID.
```

```
iE-Extensions
                              ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                              ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IES RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                          CCTrCH-ID,
                           TFCS
   tFCS
                                     OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                               ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRqstTDD
                                     ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD
DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   dCH-ID
                           DCH-ID,
                              ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
```

```
DCH-DeleteItem-RL-ReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  EXTENSION RL-ReconfigurationRequestTDD-RL-Information
                                                                                                                                PRESENCE
   optional},
    . . .
RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
   rL-ID
                         RL-ID,
   rL-Specific-DCH-Info
                         RL-Specific-DCH-Info OPTIONAL,
   iE-Extensions
                         ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ReconfigurationRequestTDD-RL-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
          id-UL-Synchronisation-Parameters-LCR
                                                       CRITICALITY ignore
                                                                             EXTENSION
                                                                                       UL-Synchronisation-Parameters-LCR
                                                                                                                           PRESENCE
   optional }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    RADIO LINK RECONFIGURATION RESPONSE FDD
RadioLinkReconfigurationResponseFDD ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{RadioLinkReconfigurationResponseFDD-IEs}},
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                          OPTIONAL,
RadioLinkReconfigurationResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseList-RL-ReconfRspFDD
                                                       CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfRspFDD
                                                                                                                           PRESENCE optional
    ID id-CriticalityDiagnostics
                                        CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                          PRESENCE optional },
RL-InformationResponseList-RL-ReconfRspFDD
                                           ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfRspFDD-IEs} }
RL-InformationResponse-RL-ReconfRspFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponseItem-RL-ReconfRspFDD
                                                       CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRspFDD PRESENCE mandatory
```

```
RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
   rL-ID
                                   RL-ID,
   max-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
   min-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
   maximumDLTxPower
                                                   OPTIONAL,
                                   DL-Power
   minimumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
   secondary-CCPCH-Info
                                   Secondary-CCPCH-Info
                                                              OPTIONAL,
   dCHsInformationResponseList
                                   DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
   dL-CodeInformationList-RL-ReconfResp
                                           DL-CodeInformationList-RL-ReconfRspFDD OPTIONAL,
                                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator CRITICALITY ignore
                                                                      EXTENSION
                                                                                      DL-PowerBalancing-UpdatedIndicator
                                                                                                                             PRESENCE optional },
    . . .
                                                      ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }
DCH-InformationResponseList-RL-ReconfRspFDD
DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse
                                       CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                              PRESENCE mandatory
DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}
DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                      PRESENCE optional }
RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION RESPONSE TDD
    ****************
RadioLinkReconfigurationResponseTDD ::= SEQUENCE {
                                                              {{RadioLinkReconfigurationResponseTDD-IEs}},
                                   ProtocolIE-Container
   protocolIEs
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}
   protocolExtensions
                                                                                                                                 OPTIONAL,
RadioLinkReconfigurationResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-InformationResponse-RL-ReconfRspTDD
                                                      CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfRspTDD
                                                                                                                             PRESENCE optional }
    { ID id-CriticalityDiagnostics
                                   CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
```

```
RL-InformationResponse-RL-ReconfRspTDD ::= SEOUENCE {
   rL-ID
                                 RL-ID,
   max-UL-SIR
                                 UL-SIR
                                                OPTIONAL,
                                                OPTIONAL,
   min-UL-SIR
                                 UL-SIR
   maximumDLTxPower
                                 DL-Power
                                                OPTIONAL,
                                 DL-Power
                                                OPTIONAL,
   minimumDLTxPower
   dCHsInformationResponseList
                                 DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL.
                                 ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     { ID id-UL-TimingAdvanceCtrl-LCR
                                                    CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                                           PRESENCE optional },
   --For 1.28Mcps TDD only
DL-CCTrCH-InformationList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfRspTDD
DL-CCTrCH-InformationItem-RL-ReconfRspTDD ::= SEQUENCE {
   cCTrCH-ID
   dl-DPCH-ModifyInformation-LCR
                                            DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD
                                                                                                OPTIONAL,
   --For 1.28Mcps TDD only
   cCTrCH-Maximum-DL-Power
                                            DL-Power
                                                                   OPTIONAL,
   --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
   cCTrCH-Minimum-DL-Power
                                            DL-Power
                                                                   OPTIONAL,
   --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
   iE-Extensions
                                            ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs} }
DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD }}
DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    {ID id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD CRITICALITY ignore TYPE DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD
                                                                                                                                    PRESENCE
optional },
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD ::= SEQUENCE
  dL-Timeslot-LCR-InformationModifyList-RL-ReconfRqstTDD
                                                           DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD
                                                                                                                    OPTIONAL,
  iE-ExtensionsProtocolExtensionContainer { { DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs} }
                                                                                                              OPTIONAL,
```

```
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD
                                                    ::= SEQUENCE {
   timeSlotLCR
                                         TimeSlotLCR,
   maxPowerLCR
                                         DL-Power
                                                    OPTIONAL,
   minPowerLCR
                                         DL-Power
                                                    OPTIONAL,
                                         ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs} }
   iE-Extensions
                                                                                                                                      OPTIONAL,
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                    ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspTDD} }
DCH-InformationResponseList-RL-ReconfRspTDD
DCH-InformationResponseListIEs-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                 PRESENCE optional }
RadioLinkReconfigurationResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     -- RADIO LINK FAILURE INDICATION
__ **********************************
RadioLinkFailureIndication ::= SEOUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                            {{RadioLinkFailureIndication-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}
                                                                                                                    OPTIONAL,
RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-Reporting-Object-RL-FailureInd CRITICALITY ignore TYPE Reporting-Object-RL-FailureInd
                                                                                                 PRESENCE mandatory
Reporting-Object-RL-FailureInd ::= CHOICE {
                          RL-RL-FailureInd,
   rL
                          RL-Set-RL-FailureInd, --FDD only
   rL-Set
                          CCTrCH-RL-FailureInd --TDD only
   cCTrCH
```

```
RL-RL-FailureInd
                         ::= SEOUENCE {
   rL-InformationList-RL-FailureInd
                                         RL-InformationList-RL-FailureInd.
                                         ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs} }
RL-InformationList-RL-FailureInd
RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-FailureInd
                                             CRITICALITY ignore TYPE RL-Information-RL-FailureInd
                                                                                                    PRESENCE mandatory
RL-Information-RL-FailureInd ::= SEQUENCE {
   rL-ID
                              RL-ID,
   cause
                              Cause.
                                 ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-FailureInd-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
                             ::= SEOUENCE {
RL-Set-RL-FailureInd
   rL-Set-InformationList-RL-FailureInd
                                         RL-Set-InformationList-RL-FailureInd,
                                         ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-FailureInd
                                             FailureInd-IEs} }
RL-Set-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-FailureInd
                                                 CRITICALITY ignore TYPE RL-Set-Information-RL-FailureInd PRESENCE mandatory }
RL-Set-Information-RL-FailureInd ::= SEQUENCE {
   rL-Set-ID
                                 RL-Set-ID,
   cause
                                 Cause,
                                 ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
```

```
RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-FailureInd ::= SEQUENCE {
                                          RL-ID,
                                          CCTrCH-InformationList-RL-FailureInd,
   cCTrCH-InformationList-RL-FailureInd
   iE-Extensions
                                       ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }
                                                                                                       OPTIONAL,
CCTrCHItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-FailureInd}}
CCTrCH-InformationItemIE-RL-FailureInd RNSAP-PROTOCOL-IES ::= {
   { ID id-CCTrCH-InformationItem-RL-FailureInd
                                                                                  TYPE CCTrCH-InformationItem-RL-FailureInd
                                                     CRITICALITY
                                                                   ignore
                                                                                                                               PRESENCE
   mandatory}
CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
   cCTrCH-ID
                                          CCTrCH-ID,
   cause
   iE-Extensions
                                          OPTIONAL,
CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
__ *********************
-- RADIO LINK PREEMPTION REQUIRED INDICATION
__ *********************
RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                        {{RadioLinkPreemptionRequiredIndication-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}
                                                                                                                       OPTIONAL,
```

```
RadioLinkPreemptionRequiredIndication-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationList-RL-PreemptRequiredInd
                                                 CRITICALITY ignore TYPE RL-InformationList-RL-PreemptRequiredInd PRESENCE optional },
   . . .
                                               ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
RL-InformationList-RL-PreemptRequiredInd
PreemptRequiredInd } }
RL-InformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-PreemptRequiredInd
                                                      CRITICALITY ignore TYPE RL-InformationItem-RL-PreemptRequiredInd
                                                                                                                     PRESENCE mandatory
}
RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
   rL-ID
                             RL-ID,
   iE-Extensions
                             ProtocolExtensionContainer { {RL-Information-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
   . . .
RL-Information-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkPreemptionRequiredIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   PreemptRequiredInd PRESENCE optional },
HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd ::= SEQUENCE (SIZE (1.. maxNrOfMACdFlows)) OF ProtocolIE-Single-Container {
{HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd} }
HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
    { ID id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd
                                                                    CRITICALITY ignore TYPE HSDSCHMacdFlowSpecificInformationItem-RL-
PreemptRequiredInd PRESENCE mandatory }
HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                       HSDSCH-MACdFlow-ID,
   iE-Extensions
                             ProtocolExtensionContainer { { HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
   . . .
HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK RESTORE INDICATION
```

```
__ *********************
RadioLinkRestoreIndication ::= SEOUENCE {
                              ProtocolIE-Container
   protocolIEs
                                                      {{RadioLinkRestoreIndication-IEs}},
                              ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
   }
Reporting-Object-RL-RestoreInd ::= CHOICE {
                       RL-RL-RestoreInd, --TDD only
   rL-Set
                       RL-Set-RL-RestoreInd, --FDD only
   . . . ,
   cCTrCH
                       CCTrCH-RL-RestoreInd --TDD only
RL-RL-RestoreInd ::= SEOUENCE {
   rL-InformationList-RL-RestoreInd
                                     RL-InformationList-RL-RestoreInd,
   iE-Extensions
                                     ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
RLItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-RestoreInd
                                     ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-RestoreInd-IEs} }
RL-Information-RL-RestoreInd-IES RNSAP-PROTOCOL-IES ::= {
                                      CRITICALITY ignore TYPE RL-Information-RL-RestoreInd
                                                                                           PRESENCE mandatory }
   { ID id-RL-Information-RL-RestoreInd
RL-Information-RL-RestoreInd ::= SEQUENCE {
   rL-ID
                           RL-ID,
   iE-Extensions
                              ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
   . . .
RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-RestoreInd ::= SEQUENCE {
   rL-Set-InformationList-RL-RestoreInd
                                     RL-Set-InformationList-RL-RestoreInd,
   iE-Extensions
```

```
RL-SetItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-RestoreInd
                                               ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RestoreInd-IEs} }
RL-Set-Information-RL-RestoreInd-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-RestoreInd
                                              CRITICALITY ignore TYPE RL-Set-Information-RL-RestoreInd PRESENCE mandatory }
RL-Set-Information-RL-RestoreInd ::= SEQUENCE {
   rL-Set-ID
                                   RL-Set-ID,
   iE-Extensions
                                   ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-RestoreInd ::= SEQUENCE {
                                               RL-ID,
   cCTrCH-InformationList-RL-RestoreInd
                                               CCTrCH-InformationList-RL-RestoreInd,
                                           ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }
   iE-Extensions
                                                                                                                  OPTIONAL,
CCTrCHitem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-RestoreInd}}
CCTrCH-InformationItemIE-RL-RestoreInd RNSAP-PROTOCOL-IES ::= {
    { ID id-CCTrCH-InformationItem-RL-RestoreInd
                                                           CRITICALITY
                                                                           ignore
                                                                                           TYPE CCTrCH-InformationItem-RL-RestoreInd
                                                                                                                                             PRESENCE
    mandatory}
CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
                                                   CCTrCH-ID,
    cCTrCH-ID
   iE-Extensions
                                               ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-RestoreInd-ExtIEs } } OPTIONAL,
CCTrCH-InformationItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- DOWNLINK POWER CONTROL REQUEST
  *****************
DL-PowerControlRequest ::= SEOUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{DL-PowerControlRequest-IEs}},
                                ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}
                                                                                                            OPTIONAL,
   protocolExtensions
DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-PowerAdjustmentType
                                    CRITICALITY ignore TYPE PowerAdjustmentType
                                                                                        PRESENCE mandatory }
   { ID id-DLReferencePower
                                    CRITICALITY ignore TYPE DL-Power
                                                                                        PRESENCE conditional }
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    PRESENCE optional }
   { ID id-DLReferencePowerList-DL-PC-Rqst
                                           CRITICALITY ignore TYPE DL-ReferencePowerInformationList-DL-PC-Rgst PRESENCE conditional}
   -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
                                                                                   PRESENCE conditional } |
   { ID id-MaxAdjustmentStep
                                   CRITICALITY ignore TYPE MaxAdjustmentStep
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
   { ID id-AdjustmentPeriod
                           CRITICALITY ignore TYPE AdjustmentPeriod
                                                                                   PRESENCE conditional } |
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
   { ID id-AdjustmentRatio
                                CRITICALITY ignore TYPE ScaledAdjustmentRatio
                                                                                   PRESENCE conditional },
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
DL-ReferencePowerInformationList-DL-PC-Rqst
                                              ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {DL-ReferencePowerInformation-
DL-PC-Rqst-IEs} }
DL-ReferencePowerInformation-DL-PC-Rgst-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-DL-ReferencePowerInformation-DL-PC-Rqst CRITICALITY ignore TYPE DL-ReferencePowerInformation-DL-PC-Rqst PRESENCE mandatory }
DL-ReferencePowerInformation-DL-PC-Rqst ::= SEQUENCE {
                            RL-ID,
   dl-Reference-Power
                                    DL-Power,
   iE-Extensions
                                ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs} } OPTIONAL,
DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
*****************
-- DOWNLINK POWER TIMESLOT CONTROL REQUEST TDD
  *****************
DL-PowerTimeslotControlRequest ::= SEQUENCE {
  protocolIEs
                           ProtocolIE-Container
                                               {{DL-PowerTimeslotControlRequest-IEs}},
                           ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}
  protocolExtensions
                                                                                                OPTIONAL,
   . . .
DL-PowerTimeslotControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
   --Mandatory for 3.84Mcps TDD only
DL-PowerTimeslotControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
                                                   ignore EXTENSION DL-TimeSlot-ISCP-LCR-Information PRESENCE optional | |
   --Mandatory for 1.28Mcps TDD only
   { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD
                                       CRITICALITY ignore
                                                         EXTENSION PrimaryCCPCH-RSCP
                                                                                     PRESENCE optional },
  *****************
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
__ ***********************************
PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
                                                {{PhysicalChannelReconfigurationReguestFDD-IEs}},
  protocolIEs
                           ProtocolIE-Container
  protocolExtensions
                           ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}
                                                                                                       OPTIONAL,
PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
   . . .
RL-Information-PhyChReconfRgstFDD ::= SEQUENCE {
   rL-ID
                       RL-ID,
   dl-CodeInformation
                           DL-CodeInformationList-PhyChReconfRgstFDD,
   iE-Extensions
                           ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
```

```
RL-Information-PhyChReconfRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CodeInformationList-PhyChReconfRqstFDD
                                           ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }
DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FDD-DL-CodeInformation CRITICALITY notify TYPE FDD-DL-CodeInformation PRESENCE mandatory }
PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
  *****************
PhysicalChannelReconfigurationRequestTDD ::= SEQUENCE {
                                                         {{PhysicalChannelReconfigurationRequestTDD-IEs}},
   protocolIEs
                                ProtocolIE-Container
                                ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                           OPTIONAL,
PhysicalChannelReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
RL-Information-PhyChReconfRqstTDD ::= SEQUENCE {
   rL-ID
                            RL-ID,
   ul-CCTrCH-Information
                                   UL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                                               OPTIONAL,
   dl-CCTrCH-Information
                                   DL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                                              OPTIONAL,
                                ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
   { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
                                                             CRITICALITY reject EXTENSION HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
   PRESENCE optional } |
   --For 3.84Mcps TDD only
   { ID id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD CRITICALITY reject EXTENSION HSPDSCH-Timeslot-InformationListLCR-
PhyChReconfRqstTDD PRESENCE optional },
   --For 1.28Mcps TDD only
   . . .
UL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                             ::= ProtocolIE-Single-Container { {UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }
```

```
UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                            CRITICALITY reject TYPE UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                                    PRESENCE
mandatory }
UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRqstTDD
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                                  CCTrCH-ID,
   ul-DPCH-Information
                                  UL-DPCH-InformationList-PhyChReconfRqstTDD,
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
UL-DPCH-InformationListIEs-PhyChReconfRgstTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
UL-DPCH-InformationItem-PhyChReconfRgstTDD ::= SEQUENCE
    repetitionPeriod
                                  RepetitionPeriod
                                                         OPTIONAL,
                                  RepetitionLength
    repetitionLength
                                                         OPTIONAL,
    tDD-DPCHOffset
                                  TDD-DPCHOffset
                                                         OPTIONAL,
   uL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                         UL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                                                                        OPTIONAL,
    --For 3.84Mcps TDD only
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD CRITICALITY reject
                                                                                   EXTENSION UL-TimeslotLCR-InformationList-PhyChReconfRqstTDD
    PRESENCE optional },
    --For 1.28Mcps TDD only
UL-TimeslotLCR-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD
UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                  TimeSlotLCR,
   midambleShiftLCR
                                  MidambleShiftLCR
                                                         OPTIONAL,
   tFCI-Presence
                                  TFCI-Presence
                                                     OPTIONAL,
   uL-Code-LCR-Information
                                  TDD-UL-Code-LCR-Information
                                                                OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
```

```
UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD
UL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   timeSlot
                                  TimeSlot,
   midambleShiftAndBurstType
                                             MidambleShiftAndBurstType
                                                                            OPTIONAL
   tFCI-Presence
                                  TFCI-Presence
                                                     OPTIONAL,
   uL-Code-Information
                              TDD-UL-Code-Information
                                                         OPTIONAL,
                                  ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                 ::= ProtocolIE-Single-Container { { DL-CCTrCH-InformationListIEs-PhyChReconfRgstTDD} }
DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                            CRITICALITY reject TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                                    PRESENCE
mandatory }
DL-CCTrCH-InformationListIE-PhyChReconfRgstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRgstTDD
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                                  CCTrCH-ID,
   dl-DPCH-Information
                                  DL-DPCH-InformationList-PhyChReconfRqstTDD,
   iE-Extensions
                                  ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
DL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod
                                  RepetitionPeriod
                                                         OPTIONAL,
   repetitionLength
                                  RepetitionLength
                                                         OPTIONAL.
   tDD-DPCHOffset
                                  TDD-DPCHOffset
                                                         OPTIONAL,
    dL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                         DL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                                                                        OPTIONAL.
```

```
iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    EXTENSION DL-TimeslotLCR-InformationList-PhyChReconfRqstTDD
   PRESENCE optional },
   --For 1.28Mcps TDD only
DL-TimeslotLCR-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD
DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   timeSlotLCR
                                TimeSlotLCR,
   midambleShiftLCR
                                 MidambleShiftLCR
                                                       OPTIONAL,
                                                   OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
   dL-Code-LCR-Information
                                 TDD-DL-Code-LCR-Information
                                                              OPTIONAL,
                                 ProtocolExtensionContainer { {DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
DL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD
DL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
                                 TimeSlot,
   timeSlot
   midambleShiftAndBurstType
                                            MidambleShiftAndBurstType
                                                                         OPTIONAL,
                                 TFCI-Presence
   tFCI-Presence
                                                   OPTIONAL,
   dL-Code-Information
                             TDD-DL-Code-Information
                                                       OPTIONAL,
                                 ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD
HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD::= SEQUENCE {
   timeslot
                                               TimeSlot,
   midambleShiftAndBurstType
                                               MidambleShiftAndBurstType,
   iE-Extensions
                                                OPTIONAL,
    . . .
```

```
HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD
HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD::= SEQUENCE {
   timeslotLCR
                                           TimeSlotLCR,
   midambleShiftLCR
                                           MidambleShiftLCR,
   iE-Extensions
                                           ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs } }
   OPTIONAL,
   . . .
HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- PHYSICAL CHANNEL RECONFIGURATION COMMAND
  PhysicalChannelReconfigurationCommand ::= SEQUENCE {
                                                         {{PhysicalChannelReconfigurationCommand-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}
                                                                                                                          OPTIONAL,
PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CFN
                             CRITICALITY ignore TYPE CFN
                                                                         PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                         PRESENCE optional },
   . . .
PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
  ******************
PhysicalChannelReconfigurationFailure ::= SEQUENCE {
```

```
protocolIEs
                                                            {{PhysicalChannelReconfigurationFailure-IEs}},
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}
                                                                                                                                OPTIONAL,
PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-Cause
                                  CRITICALITY ignore TYPE Cause
                                                                                PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     -- RADIO LINK CONGESTION INDICATION
__ **********************
RadioLinkCongestionIndication ::= SEQUENCE {
                                                            {{RadioLinkCongestionIndication-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkCongestionIndication-Extensions}}
                                                                                                                        OPTIONAL,
RadioLinkCongestionIndication-IEs RNSAP-PROTOCOL-IES ::= {
                                                                                                        PRESENCE optional } |
     ID id-CongestionCause
                                             CRITICALITY ignore TYPE CongestionCause
    { ID id-RL-InformationList-RL-CongestInd
                                             CRITICALITY ignore TYPE RL-InformationList-RL-CongestInd
                                                                                                        PRESENCE mandatory },
                                          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-CongestInd}
RL-InformationList-RL-CongestInd
RL-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-CongestInd
                                                 CRITICALITY ignore TYPE RL-InformationItem-RL-CongestInd PRESENCE mandatory
RL-InformationItem-RL-CongestInd ::= SEQUENCE {
   rL-ID
                                      RL-ID,
   dCH-Rate-Information
                              DCH-Rate-Information-RL-CongestInd,
                              ProtocolExtensionContainer { {RL-Information-RL-CongestInd-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DCH-Rate-Information-RL-CongestInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF ProtocolIE-Single-Container { {DCH-Rate-InformationItemIEs-RL-CongestInd} }
DCH-Rate-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-Rate-InformationItem-RL-CongestInd
                                                     CRITICALITY ignore TYPE DCH-Rate-InformationItem-RL-CongestInd
                                                                                                                      PRESENCE mandatory
```

```
DCH-Rate-InformationItem-RL-CongestInd ::= SEOUENCE {
   dCH-ID
                             DCH-ID,
   allowed-Rate-Information
                             Allowed-Rate-Information OPTIONAL,
                             ProtocolExtensionContainer { {DCH-Rate-InformationItem-RL-CongestInd-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DCH-Rate-InformationItem-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-CongestInd-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkCongestionIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- UPLINK SIGNALLING TRANSFER INDICATION FDD
  ******************
UplinkSignallingTransferIndicationFDD ::= SEQUENCE {
                                                          {{UplinkSignallingTransferIndicationFDD-IEs}},
   protocolIEs
                                ProtocolIE-Container
                                ProtocolExtensionContainer {{UplinkSignallingTransferIndicationFDD-Extensions}}
   protocolExtensions
                                                                                                                          OPTIONAL,
UplinkSignallingTransferIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
                                                                             PRESENCE mandatory }
     ID id-UC-ID
                                CRITICALITY ignore TYPE UC-ID
     ID id-SAI
                                                                         PRESENCE mandatory }
                             CRITICALITY ignore TYPE SAI
     ID id-GA-Cell
                             CRITICALITY ignore TYPE GA-Cell
                                                                         PRESENCE optional } |
     ID id-C-RNTI
                                CRITICALITY ignore TYPE C-RNTI
                                                                            PRESENCE mandatory
                                                                            PRESENCE mandatory
     ID id-S-RNTI
                                CRITICALITY ignore TYPE S-RNTI
     ID id-D-RNTI
                                 CRITICALITY ignore TYPE D-RNTI
                                                                            PRESENCE optional
                                CRITICALITY ignore TYPE PropagationDelay
     ID id-PropagationDelay
                                                                            PRESENCE mandatory }
     ID id-STTD-SupportIndicator
                                           CRITICALITY ignore TYPE STTD-SupportIndicator PRESENCE mandatory } |
                                           CRITICALITY ignore TYPE ClosedLoopModel-SupportIndicator PRESENCE mandatory }
     ID id-ClosedLoopModel-SupportIndicator
     ID id-L3-Information
                                    CRITICALITY ignore TYPE L3-Information
                                                                                   PRESENCE mandatory } |
     ID id-CN-PS-DomainIdentifier
                                        CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                         PRESENCE optional }
     ID id-CN-CS-DomainIdentifier
                                        CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                         PRESENCE optional }
    { ID id-URA-Information
                                        CRITICALITY ignore TYPE URA-Information
                                                                                            PRESENCE optional },
```

```
UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::=
     ID id-GA-CellAdditionalShapes
                                         CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                  PRESENCE optional } |
     ID id-DPC-Mode-Change-SupportIndicator
                                             CRITICALITY ignore EXTENSION
                                                                               DPC-Mode-Change-SupportIndicator
                                                                                                                   PRESENCE optional } |
                                                                    CRITICALITY ignore EXTENSION
     ID id-CommonTransportChannelResourcesInitialisationNotRequired
CommonTransportChannelResourcesInitialisationNotRequired
                                                            PRESENCE optional
                                         CRITICALITY ignore EXTENSION CellCapabilityContainer-FDD
     ID id-CellCapabilityContainer-FDD
                                                                                                     PRESENCE optional } |
    ID id-SNA-Information
                                         CRITICALITY ignore
                                                                    EXTENSION SNA-Information
                                                                                                  PRESENCE optional },
        UPLINK SIGNALLING TRANSFER INDICATION TDD
  ******************
UplinkSignallingTransferIndicationTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{UplinkSignallingTransferIndicationTDD-IEs}},
                                  ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}
   protocolExtensions
                                                                                                                               OPTIONAL,
UplinkSignallingTransferIndicationTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-UC-ID
                                  CRITICALITY ignore TYPE UC-ID
                                                                                PRESENCE mandatory }
     ID id-SAI
                              CRITICALITY ignore TYPE SAI
                                                                            PRESENCE mandatory
     ID id-GA-Cell
                              CRITICALITY ignore TYPE GA-Cell
                                                                            PRESENCE optional }
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                               PRESENCE mandatory
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                               PRESENCE mandatory
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                               PRESENCE optional
     ID id-RxTimingDeviationForTA
                                         CRITICALITY ignore TYPE RxTimingDeviationForTA PRESENCE mandatory }
     ID id-L3-Information
                                      CRITICALITY ignore TYPE L3-Information
                                                                                       PRESENCE mandatory
     ID id-CN-PS-DomainIdentifier
                                                                                             PRESENCE optional
                                         CRITICALITY ignore TYPE CN-PS-DomainIdentifier
     ID id-CN-CS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-URA-Information
                                         CRITICALITY ignore TYPE URA-Information
                                                                                               PRESENCE optional },
    . . .
UplinkSignallingTransferIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                         CRITICALITY ignore EXTENSION
                                                                       GA-CellAdditionalShapes
                                                                                                  PRESENCE optional } |
    { ID id-CommonTransportChannelResourcesInitialisationNotRequired
                                                                    CRITICALITY ignore EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired
                                                            PRESENCE optional }
    { ID id-CellCapabilityContainer-TDD
                                         CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
                                                                                                     PRESENCE optional } |
       -- Applicable to 3.84Mcps TDD only
                                                                                                          PRESENCE optional } |
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION
                                                                       CellCapabilityContainer-TDD-LCR
       -- Applicable to 1.28Mcps TDD only
     ID id-SNA-Information
                                         CRITICALITY ignore EXTENSION
                                                                       SNA-Information
                                                                                                     PRESENCE optional },
     ****************
```

```
-- DOWNLINK SIGNALLING TRANSFER REQUEST
__ ********************
DownlinkSignallingTransferRequest ::= SEQUENCE {
                                              {{DownlinkSignallingTransferRequest-IEs}},
  protocolIEs
                          ProtocolIE-Container
  protocolExtensions
                         ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}
                                                                                                OPTIONAL.
DownlinkSignallingTransferRequest-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-C-ID
                          CRITICALITY ignore TYPE C-ID
                                                            PRESENCE mandatory } |
   -- May be a GERAN cell identifier
   { ID id-D-RNTI CRITICALITY ignore TYPE D-RNTI PRESEN
{ ID id-L3-Information CRITICALITY ignore TYPE L3-Information
                                                            PRESENCE mandatory } |
                                                                   PRESENCE mandatory } |
   PRESENCE mandatory },
   . . .
DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RELOCATION COMMIT
  *****************
RelocationCommit ::= SEQUENCE {
  protocolIEs
                          ProtocolIE-Container
                                              {{RelocationCommit-IEs}},
  protocolExtensions
                          ProtocolExtensionContainer {{RelocationCommit-Extensions}}
                                                                                   OPTIONAL,
RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-D-RNTI CRITICALITY ignore TYPE D-RNTI
                                                              PRESENCE optional } |
   RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- PAGING REQUEST
__ **********************
```

```
PagingRequest ::= SEQUENCE {
                                                               {{PagingRequest-IEs}},
   protocolIEs
                                    ProtocolIE-Container
   protocolExtensions
                                    ProtocolExtensionContainer {{PagingRequest-Extensions}}
                                                                                                              OPTIONAL,
PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
                                            CRITICALITY ignore TYPE PagingArea-PagingRqst
     ID id-PagingArea-PagingRqst
                                                                                                  PRESENCE mandatory } |
     ID id-SRNC-ID
                                    CRITICALITY ignore TYPE RNC-ID
                                                                                    PRESENCE mandatory
                                                                                                            -- May be a BSC-Id.
    { ID id-S-RNTI
                                    CRITICALITY ignore TYPE S-RNTI
                                                                                    PRESENCE mandatory
     ID id-IMSI
                                    CRITICALITY ignore TYPE IMSI
                                                                                    PRESENCE mandatory }
     ID id-DRXCycleLengthCoefficient
                                                    CRITICALITY ignore TYPE DRXCycleLengthCoefficient
                                                                                                                 PRESENCE mandatory
    { ID id-CNOriginatedPage-PagingRqst
                                                    CRITICALITY ignore TYPE CNOriginatedPage-PagingRqst
                                                                                                                 PRESENCE optional
    . . .
PagingArea-PagingRqst ::= CHOICE {
                           URA-PagingRqst, -- May be a GRA-ID.
    cell
                           Cell-PagingRqst, -- UTRAN only
URA-PagingRgst ::= SEOUENCE {
    uRA-ID
    iE-Extensions
                                ProtocolExtensionContainer { { URAItem-PagingRgst-ExtIEs} } OPTIONAL,
    . . .
URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Cell-PagingRgst ::= SEQUENCE {
    c-ID
                                ProtocolExtensionContainer { { CellItem-PagingRgst-ExtIEs} } OPTIONAL,
    iE-Extensions
CellItem-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNOriginatedPage-PagingRqst::= SEQUENCE {
    pagingCause
                                PagingCause,
                                CNDomainType,
    cNDomainType
   pagingRecordType
                                PagingRecordType,
   iE-Extensions
                                ProtocolExtensionContainer { { CNOriginatedPage-PagingRqst-ExtIEs} } OPTIONAL,
CNOriginatedPage-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- DEDICATED MEASUREMENT INITIATION REQUEST
  ***************
DedicatedMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{DedicatedMeasurementInitiationRequest-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}
                                                                                                                     OPTIONAL,
DedicatedMeasurementInitiationRequest-IES RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                  CRITICALITY reject TYPE MeasurementID
                                                                                PRESENCE mandatory }
     This IE represents both the Dedicated Measurement Object Type IE and the choice based on the Dedicated Measurement Object Type
     as described in the tabular message format in subclause 9.1.
     ID id-DedicatedMeasurementType
                                         CRITICALITY reject TYPE DedicatedMeasurementType
                                                                                          PRESENCE mandatory }
     ID id-MeasurementFilterCoefficient
                                         CRITICALITY reject TYPE MeasurementFilterCoefficient
                                                                                               PRESENCE optional }
     ID id-ReportCharacteristics
                                      CRITICALITY reject TYPE ReportCharacteristics
                                                                                     PRESENCE mandatory
     ID id-CFNReportingIndicator
                                                                                     PRESENCE mandatory
                                      CRITICALITY reject TYPE FNReportingIndicator
   { ID id-CFN
                                      CRITICALITY reject TYPE CFN
                                                                                     PRESENCE optional
   . . .
DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
   rL
                        RL-DM-Rqst,
   rLS
                        RL-Set-DM-Rgst,
   allRL
                        All-RL-DM-Rast,
   allRLS
                        All-RL-Set-DM-Rgst,
   . . .
RL-DM-Rqst ::= SEQUENCE {
   rL-InformationList-DM-Rgst
                               RL-InformationList-DM-Rgst,
                               ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rqst
                                      ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rqst-IEs} }
```

```
RL-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
                                     CRITICALITY reject TYPE RL-InformationItem-DM-Rqst
    { ID id-RL-InformationItem-DM-Rgst
                                                                                               PRESENCE mandatory }
RL-InformationItem-DM-Rqst ::= SEQUENCE {
   rL-ID
                             RL-ID,
   dPCH-ID
                              DPCH-ID
                                         OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-Info-DM-Rast
                                 CRITICALITY reject
                                                                EXTENSION HSSICH-Info-DM-Rast
                                                                                                                PRESENCE optional },
    -- TDD only
HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrofHSSICHs)) OF HS-SICH-ID
RL-Set-DM-Rgst ::= SEQUENCE {
   rL-Set-InformationList-DM-Rqst RL-Set-InformationList-DM-Rqst,
                                  RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rgst
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rgst-
IEs} }
RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rqst
                                             CRITICALITY reject TYPE RL-Set-InformationItem-DM-Rqst
                                                                                                       PRESENCE mandatory
RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
   rL-Set-ID
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
All-RL-DM-Rqst ::= NULL
All-RL-Set-DM-Rqst ::= NULL
```

```
DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::=
   { ID id-PartialReportingIndicator
                                       CRITICALITY ignore
                                                                 EXTENSION
                                                                            PartialReportingIndicator
                                                                                                                      PRESENCE optional },
   . . .
-- DEDICATED MEASUREMENT INITIATION RESPONSE
DedicatedMeasurementInitiationResponse ::= SEQUENCE
   protocolIEs
                                ProtocolIE-Container
                                                         {{DedicatedMeasurementInitiationResponse-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}
                                                                                                                          OPTIONAL.
DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                   CRITICALITY ignore TYPE MeasurementID
                                                                                   PRESENCE mandatory }
     { ID id-CriticalityDiagnostics
                                 CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                        PRESENCE optional },
DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
   rLs
                         RL-DM-Rsp,
   rLS
                         RL-Set-DM-Rsp,
   allRL
                         RL-DM-Rsp,
   allRLS
                         RL-Set-DM-Rsp,
RL-DM-Rsp ::= SEOUENCE {
   rL-InformationList-DM-Rsp
                                RL-InformationList-DM-Rsp,
   iE-Extensions
                                ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rsp ::= SEQUENCE {
   rL-Set-InformationList-DM-Rsp RL-Set-InformationList-DM-Rsp,
   iE-Extensions
                                ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-InformationList-DM-Rsp
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rsp-IEs} }
RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp
                                         CRITICALITY ignore TYPE RL-InformationItem-DM-Rsp PRESENCE mandatory
RL-InformationItem-DM-Rsp ::= SEQUENCE {
   dPCH-ID
                             DPCH-ID
                                                OPTIONAL,
                                     DedicatedMeasurementValue,
   dedicatedMeasurementValue
                                                OPTIONAL,
                             CFN
                                 ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rsp
                                 CRITICALITY reject
                                                               EXTENSION HS-SICH-ID
                                                                                         PRESENCE optional },
   -- TDD only
RL-Set-InformationList-DM-Rsp
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-IEs}
RL-Set-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp
                                            CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rsp
                                                                                                   PRESENCE mandatory
RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
   rL-Set-ID
                                 RL-Set-ID,
   dedicatedMeasurementValue
                                 DedicatedMeasurementValue,
                                 ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     -- DEDICATED MEASUREMENT INITIATION FAILURE
  *****************
```

```
DedicatedMeasurementInitiationFailure ::= SEOUENCE {
        protocolIEs
                                                                           ProtocolIE-Container
                                                                                                                                      {{DedicatedMeasurementInitiationFailure-IEs}},
        protocolExtensions
                                                                           ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}
                                                                                                                                                                                                                                                                                           OPTIONAL,
DedicatedMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
            ID id-MeasurementID
                                                                                    CRITICALITY ignore TYPE MeasurementID
                                                                                                                                                                                                  PRESENCE mandatory } |
            ID id-Cause
                                                                           CRITICALITY ignore TYPE Cause
                                                                                                                                                                                 PRESENCE mandatory }
         { ID id-CriticalityDiagnostics
                                                                                            CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                                                                                                                              PRESENCE optional },
DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
         { ID id-DedicatedMeasurementObjectType-DM-Fail CRITICALITY ignore EXTENSION DedicatedMeasurementObjectType-DM-Fail PRESENCE optional },
DedicatedMeasurementObjectType-DM-Fail ::= CHOICE {
        rL
                                                          RL-DM-Fail,
        rLS
                                                           RL-Set-DM-Fail,
        allRL
                                                          RL-DM-Fail,
                                                          RL-Set-DM-Fail,
        allRLS
         . . .
RL-DM-Fail ::= SEOUENCE {
        rL-unsuccessful-InformationRespList-DM-Fail
                                                                                                              RL-Unsuccessful-InformationRespList-DM-Fail,
        rL-successful-InformationRespList-DM-Fail
                                                                                                              RL-Successful-InformationRespList-DM-Fail
                                                                                                                                                                                                                    OPTIONAL,
                                                                           ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
        iE-Extensions
RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail ::= SEQUENCE {
        \verb|rL-Set-unsuccessful-InformationRespList-DM-Fail|| RL-Set-Unsuccessful-InformationRespList-DM-Fail||, and the property of t
        rL-Set-successful-InformationRespList-DM-Fail RL-Set-Successful-InformationRespList-DM-Fail
                                                                                                                                                                                                                           OPTIONAL,
                                                                           ProtocolExtensionContainer { { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
        iE-Extensions
         . . .
RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Unsuccessful-InformationRespList-DM-Fail
                                                                                                             ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }
```

```
RL-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail
                                                       CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail
                                                                                                                            PRESENCE mandatory
RL-Unsuccessful-InformationItem-DM-Fail ::= SEOUENCE {
                                RL-ID,
    individualcause
                                Cause OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Successful-InformationRespList-DM-Fail
                                                    ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Successful-
InformationResp-DM-Fail-IEs} }
RL-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Successful-InformationItem-DM-Fail
                                                        CRITICALITY ignore TYPE RL-Successful-InformationItem-DM-Fail PRESENCE mandatory }
RL-Successful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-ID
                                RL-ID,
   dPCH-ID
                                DPCH-ID
                                                    OPTIONAL,
    dedicatedMeasurementValue
                               DedicatedMeasurementValue,
                                                    OPTIONAL.
                                ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-Unsuccessful-InformationRespList-DM-Fail
                                                            ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }
RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                           CRITICALITY ignore TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                                                                                                     PRESENCE mandatory
RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID
                                    RL-Set-ID,
    individualcause
                                    Cause
                                                OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-Set-Successful-InformationRespList-DM-Fail
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
Successful-InformationResp-DM-Fail-IEs} }
RL-Set-Successful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
     ID id-RL-Set-Successful-InformationItem-DM-Fail
                                                        CRITICALITY ignore TYPE RL-Set-Successful-InformationItem-DM-Fail
                                                                                                                          PRESENCE mandatory
}
RL-Set-Successful-InformationItem-DM-Fail ::= SEQUENCE {
   rL-Set-ID
                                  RL-Set-ID,
   dedicatedMeasurementValue
                                  DedicatedMeasurementValue,
                                                            OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT REPORT
  *****************
DedicatedMeasurementReport ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{DedicatedMeasurementReport-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
                                                                                                                     OPTIONAL,
DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
                                     CRITICALITY ignore TYPE MeasurementID
     ID id-MeasurementID
                                                                                      PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-RprtPRESENCE mandatory },
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
                          RL-DM-Rprt,
   rLS
                          RL-Set-DM-Rprt,
   allRL
                          RL-DM-Rprt,
   allRLS
                          RL-Set-DM-Rprt,
    . . .
RL-DM-Rprt ::= SEQUENCE {
   rL-InformationList-DM-Rprt
                                  RL-InformationList-DM-Rprt,
```

```
iE-Extensions
                                    ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rprt ::= SEOUENCE {
    rL-Set-InformationList-DM-Rprt RL-Set-InformationList-DM-Rprt,
                                    ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs} } OPTIONAL,
    . . .
RL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }
RL-InformationList-DM-Rprt
RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt
                                            CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt
                                                                                                     PRESENCE mandatory }
RL-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-ID
                                RL-ID,
    dPCH-ID
                                DPCH-ID
                                                    OPTIONAL.
                                            DedicatedMeasurementValueInformation,
    dedicatedMeasurementValueInformation
                                    ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rprt
                                                                                                                       PRESENCE optional },
                                    CRITICALITY rejectignore
                                                                            EXTENSION HS-SICH-ID
    -- TDD only
    . . .
RL-Set-InformationList-DM-Rprt
                                                ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rprt-
IEs} }
RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt
                                             CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt
                                                                                                              PRESENCE mandatory }
RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID
                                    RL-Set-ID,
    dedicatedMeasurementValueInformation
                                            DedicatedMeasurementValueInformation,
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
```

```
RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT TERMINATION REQUEST
  DedicatedMeasurementTerminationRequest ::= SEQUENCE {
                    ProtocolIE-Container
                                                  {{DedicatedMeasurementTerminationRequest-IEs}},
   protocolIEs
                           ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
   . . .
DedicatedMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-MeasurementID
                      CRITICALITY ignore TYPE MeasurementID
                                                                        PRESENCE mandatory },
   . . .
DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- DEDICATED MEASUREMENT FAILURE INDICATION
  *****************
DedicatedMeasurementFailureIndication ::= SEQUENCE {
   protocolIEs
                       ProtocolIE-Container
                                                  {{DedicatedMeasurementFailureIndication-IEs}},
                            ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
DedicatedMeasurementFailureIndication-IES RNSAP-PROTOCOL-IES ::= {
                     CRITICALITY ignore TYPE MeasurementID
                                                                        PRESENCE mandatory } |
    ID id-MeasurementID
   { ID id-Cause
                          CRITICALITY ignore TYPE Cause
                                                                  PRESENCE mandatory },
DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DedicatedMeasurementObjectType-DM-Fail-Ind ::= CHOICE {
                           RL-DM-Fail-Ind,
   rLS
                           RL-Set-DM-Fail-Ind,
   allRL
                           RL-DM-Fail-Ind,
   allRLS
                           RL-Set-DM-Fail-Ind,
RL-DM-Fail-Ind ::= SEQUENCE {
    rL-unsuccessful-InformationRespList-DM-Fail-Ind
                                                        RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
                                                        ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind
                                                            RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
                                                            ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Unsuccessful-InformationRespList-DM-Fail-Ind
                                                        ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-Ind-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                           CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                                                                                                      PRESENCE mandatory
RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-ID
                                RL-ID,
    individualcause
                                Cause
                                            OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind
                                                                ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-Ind-IEs} }
```

```
RL-Set-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
   rL-Set-ID
                            RL-Set-ID,
   individualcause
                             Cause
                                      OPTIONAL,
                             ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
  *****************
CommonTransportChannelResourcesReleaseRequest ::= SEOUENCE {
                                                   {{CommonTransportChannelResourcesReleaseRequest-IEs}},
   protocolIEs
                            ProtocolIE-Container
   protocolExtensions
                            ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
                                                                                                                  OPTIONAL,
CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-D-RNTI
                            CRITICALITY ignore TYPE D-RNTI
                                                                   PRESENCE mandatory },
CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    **************
  COMMON TRANSPORT CHANNEL RESOURCES REQUEST
  ****************
CommonTransportChannelResourcesRequest ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                   {{CommonTransportChannelResourcesRequest-IEs}},
   protocolExtensions
                            ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}
                                                                                                    OPTIONAL,
CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
```

```
ID id-D-RNTI
                                                                                 PRESENCE mandatory }
                                   CRITICALITY reject TYPE D-RNTI
     ID id-C-ID
                                  CRITICALITY reject TYPE C-ID
                                                                                 PRESENCE optional }
     ID id-TransportBearerRequestIndicator
                                              CRITICALITY reject TYPE TransportBearerRequestIndicator
                                                                                                          PRESENCE mandatory } |
                                                                                             PRESENCE mandatory },
    { ID id-TransportBearerID
                                      CRITICALITY reject TYPE TransportBearerID
    . . .
CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity
                                                  CRITICALITY ignore
                                                                             EXTENSION Permanent-NAS-UE-Identity PRESENCE optional }
    { ID id-BindingID
                                          CRITICALITY ignore
                                                                  EXTENSION
                                                                             BindingID PRESENCE
                                                                                                                optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                          CRITICALITY ignore
                                                                             TransportLayerAddress
                                                                                                       PRESENCE
                                                                                                                   optional },
                                                                  EXTENSION
    -- Shall be ignored if bearer establishment with ALCAP.
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
      CommonTransportChannelResourcesResponseFDD ::= SEQUENCE {
                                                             {{CommonTransportChannelResourcesResponseFDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                   ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                           OPTIONAL,
    . . .
CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                                                                 PRESENCE mandatory
                                  CRITICALITY ignore TYPE S-RNTI
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                                 PRESENCE optional
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
                                                                                                                                          PRESENCE
mandatory } |
     ID id-TransportLayerAddress
                                                                                              PRESENCE optional } |
                                          CRITICALITY ignore TYPE TransportLayerAddress
     ID id-BindingID
                                   CRITICALITY ignore TYPE BindingID
                                                                                     PRESENCE optional } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-FlowControlInformation
                                  FACH-FlowControlInformation-CTCH-ResourceRspFDD,
                                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}
```

```
FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE
                                                                FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
                                                                             PRESENCE mandatory },
    { ID id-C-ID
                              CRITICALITY ignore
                                                     EXTENSION C-ID
    . . .
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
   CommonTransportChannelResourcesResponseTDD ::= SEQUENCE {
                                                             {{CommonTransportChannelResourcesResponseTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}
                                                                                                                           OPTIONAL,
    . . .
CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                                                                 PRESENCE mandatory
                                  CRITICALITY ignore TYPE S-RNTI
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                                 PRESENCE optional
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
                                                                                                                                         PRESENCE
mandatory } |
     ID id-TransportLayerAddress
                                          CRITICALITY ignore TYPE TransportLayerAddress
                                                                                              PRESENCE optional } |
     ID id-BindingID
                                  CRITICALITY ignore TYPE BindingID
                                                                                    PRESENCE optional } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD ::= SEQUENCE {
    fACH-FlowControlInformation
                                  FACH-FlowControlInformation-CTCH-ResourceRspTDD,
                                  ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation-CTCH-ResourceRspTDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID
                              CRITICALITY ignore
                                                                             PRESENCE mandatory },
                                                     EXTENSION C-ID
    . . .
```

```
******************
  COMMON TRANSPORT CHANNEL RESOURCES FAILURE
  *****************
CommonTransportChannelResourcesFailure ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                   {{CommonTransportChannelResourcesFailure-IEs}},
                            ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}
   protocolExtensions
                                                                                                    OPTIONAL,
   . . .
CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
                  CRITICALITY ignore TYPE S-RNTI
    ID id-S-RNTI
                                                                  PRESENCE mandatory }
    ID id-Cause
                            CRITICALITY ignore TYPE Cause
                                                                   PRESENCE mandatory }
                                   CRITICALITY ignore TYPE CriticalityDiagnostics
   { ID id-CriticalityDiagnostics
                                                                              PRESENCE optional },
   . . .
CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   -- COMPRESSED MODE COMMAND
     CompressedModeCommand ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                   {{CompressedModeCommand-IEs}},
                            ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}
   protocolExtensions
                                                                                               OPTIONAL,
CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-Active-Pattern-Sequence-Information
                                         CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                             PRESENCE mandatory },
   . . .
CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- ERROR INDICATION
__ **********************
```

```
ErrorIndication ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{ErrorIndication-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{ErrorIndication-Extensions}}
                                                                                                  OPTIONAL,
   . . .
ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE optional |
   ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-S-RNTI
                              CRITICALITY ignore EXTENSION S-RNTI
                                                                                PRESENCE optional } |
   { ID id-D-RNTI
                               CRITICALITY ignore EXTENSION D-RNTI
                                                                                PRESENCE optional },
  -- COMMON MEASUREMENT INITIATION REQUEST
CommonMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
               ProtocolIE-Container
                                            {{CommonMeasurementInitiationRequest-IEs}},
   protocolExtensions ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}
                                                                                               OPTIONAL,
CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    ID
         id-MeasurementID
                                                    CRITICALITY reject
                                                                            TYPE
                                                                                    MeasurementID
                                                                                                                  PRESENCE mandatory
   { ID id-CommonMeasurementObjectType-CM-Rgst
                                                    CRITICALITY reject
                                                                             TYPE
                                                                                    CommonMeasurementObjectType-CM-Rgst
                                                                                                                       PRESENCE
   mandatory } |
                                    Measurement Object Type IF and the choice based on the
     as described in the tabular message format in subclause 9.1.
    ID
         id-CommonMeasurementType
                                                    CRITICALITY reject
                                                                            TYPE
                                                                                    CommonMeasurementType
                                                                                                                  PRESENCE mandatory
                                                                                                                  PRESENCE optional } |
   { ID
          id-MeasurementFilterCoefficient
                                                    CRITICALITY reject
                                                                             TYPE
                                                                                    MeasurementFilterCoefficient
   -- UTRAN only
          id-ReportCharacteristics
   { ID
                                                                             TYPE
                                                                                    ReportCharacteristics
                                                                                                                  PRESENCE mandatory
                                                    CRITICALITY reject
         id-SFNReportingIndicator
                                                                             TYPE
                                                                                    FNReportingIndicator
                                                                                                                  PRESENCE mandatory
    ID
                                                    CRITICALITY reject
   { ID
         id-SFN
                                                    CRITICALITY reject
                                                                             TYPE
                                                                                    SFN
                                                                                                                  PRESENCE optional
   -- UTRAN only
   { ID
         id-CommonMeasurementAccuracy
                                                    CRITICALITY reject
                                                                            TYPE
                                                                                                                 PRESENCE optional
                                                                                    CommonMeasurementAccuracy
```

```
-- UTRAN only
CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
   cell
                              Cell-CM-Rqst,
   . . .
Cell-CM-Rqst ::= SEQUENCE {
   uC-ID
                              UC-ID,
   -- May be a GERAN cell identifier
   timeSlot
                                            OPTIONAL,
                                                      --3.84Mcps TDD only
                              TimeSlot
   timeSlotLCR
                              TimeSlotLCR
                                            OPTIONAL,
                                                      --1.28Mcps TDD only
   {\tt neighbouringCellMeasurementInformation}
                                            NeighbouringCellMeasurementInfo
                                                                           OPTIONAL,
   -- UTRAN only
   iE-Extensions
                              ProtocolExtensionContainer { { CellItem-CM-Rgst-ExtIEs} }
                                                                                   OPTIONAL.
NeighbouringCellMeasurementInfo ::= SEOUENCE (SIZE (1..maxNrOfMeasNCell)) OF
      CHOICE {
             neighbouring FDD Cell Measurement Information
                                                      NeighbouringFDDCellMeasurementInformation,
             neighbouring TDD Cell Measurement Information
                                                      NeighbouringTDDCellMeasurementInformation,
             extension-neighbouringCellMeasurementInformation
                                                          Extension-neighbouringCellMeasurementInformation
Extension-neighbouringCellMeasurementInformation ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}
Extension-neighbouringCellMeasurementInformationIE RNSAP-PROTOCOL-IES ::= {
   CellItem-CM-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- COMMON MEASUREMENT INITIATION RESPONSE
__ ********************
CommonMeasurementInitiationResponse ::= SEQUENCE {
                       ProtocolIE-Container
                                            {{CommonMeasurementInitiationResponse-IEs}},
   protocolIEs
```

```
protocolExtensions
                          ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}
                                                                                                        OPTIONAL,
CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
           id-MeasurementID
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                       MeasurementID
                                                                                                                           PRESENCE mandatory
     ID
           id-CommonMeasurementObjectType-CM-Rsp
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                       CommonMeasurementObjectType-CM-Rsp
                                                                                                                           PRESENCE optional } |
    { ID
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                                                           PRESENCE optional } |
   -- UTRAN only
          id-CriticalityDiagnostics
                                                                               TYPE
                                                                                       CriticalityDiagnostics
    { ID
                                                     CRITICALITY ignore
                                                                                                                           PRESENCE optional } |
    { ID
          id-CommonMeasurementAccuracy
                                                         CRITICALITY reject
                                                                                           CommonMeasurementAccuracy
                                                                                                                           PRESENCE optional
                                                                                   TYPE
   -- UTRAN only
   . . .
CommonMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
   cell
                              Cell-CM-Rsp,
    . . .
Cell-CM-Rsp ::= SEQUENCE {
   commonMeasurementValue
                                             CommonMeasurementValue,
   iE-Extensions
                                             ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs} }
                                                                                                        OPTIONAL,
CellItem-CM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- COMMON MEASUREMENT INITIATION FAILURE
__ ********************
CommonMeasurementInitiationFailure ::= SEQUENCE {
                                                 {{CommonMeasurementInitiationFailure-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{CommonMeasurementInitiationFailure-Extensions}}
                                                                                                        OPTIONAL,
   protocolExtensions
CommonMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID
           id-MeasurementID
                                         CRITICALITY
                                                         ignore
                                                                        TYPE
                                                                               MeasurementID
                                                                                                        PRESENCE mandatory
     ID
           id-Cause
                                         CRITICALITY
                                                         ignore
                                                                                                        PRESENCE mandatory
                                                                        TYPE
                                                                               Cause
```

```
-- COMMON MEASUREMENT TERMINATION REQUEST
__ ********************
CommonMeasurementTerminationRequest ::= SEQUENCE {
                                             {{CommonMeasurementTerminationRequest-IEs}},
   protocolIEs
                        ProtocolIE-Container
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}
                                                                                               OPTIONAL.
CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-MeasurementID
                                  CRITICALITY
                                                                  TYPE
                                                                                          PRESENCE mandatory },
                                                ignore
                                                                         MeasurementID
   . . .
CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- COMMON MEASUREMENT FAILURE INDICATION
CommonMeasurementFailureIndication ::= SEOUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{CommonMeasurementFailureIndication-IEs}},
                           ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
         id-MeasurementID
                                  CRITICALITY ignore
                                                           TYPE
                                                                  MeasurementID
                                                                                     PRESENCE mandatory
   { ID
          id-Cause
                                  CRITICALITY ignore
                                                                                     PRESENCE mandatory
                                                           TYPE
                                                                  Cause
   . . .
CommonMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- INFORMATION EXCHANGE INITIATION REQUEST
  ******************
InformationExchangeInitiationRequest ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{InformationExchangeInitiationRequest-IEs}},
                     ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}
   protocolExtensions
                                                                                                  OPTIONAL,
```

```
InformationExchangeInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-InformationExchangeID
                                   CRITICALITY reject
                                                                        TYPE
                                                                               InformationExchangeID
                                                                                                             PRESENCE mandatory
   TYPE
                                                                               InformationExchangeObjectType-InfEx-Rqst
   mandatory }|
                 sents both the Information Exchange Object Type IF and the choice based on the Information Exchange Object Type
                                                                               InformationType
    ID
          id-InformationType
                                                   CRITICALITY reject
                                                                        TYPE
                                                                                                             PRESENCE mandatory
          id-InformationReportCharacteristics
   { ID
                                                   CRITICALITY reject
                                                                        TYPE
                                                                               InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rgst ::= CHOICE {
                              Cell-InfEx-Rqst,
   cell
Cell-InfEx-Rqst ::= SEQUENCE {
                              C-ID, --May be a GERAN cell identifier
   c-ID
                              ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }
   iE-Extensions
                                                                                      OPTIONAL,
   . . .
CellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- INFORMATION EXCHANGE INITIATION RESPONSE
__ ********************
InformationExchangeInitiationResponse ::= SEQUENCE {
                       ProtocolIE-Container
   protocolIEs
                                             {{InformationExchangeInitiationResponse-IEs}},
                       ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}
   protocolExtensions
                                                                                                OPTIONAL,
InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                   CRITICALITY ignore
                                                                           TYPE
                                                                                  InformationExchangeID
                                                                                                                PRESENCE mandatory
          id-InformationExchangeObjectType-InfEx-Rsp
                                                   CRITICALITY ignore
                                                                           TYPE
                                                                                  InformationExchangeObjectType-InfEx-Rsp
   { ID
                                                                                                                       PRESENCE
   optional
```

```
{ ID
          id-CriticalityDiagnostics
                                                     CRITICALITY ignore
                                                                              TYPE
                                                                                     CriticalityDiagnostics
                                                                                                                    PRESENCE optional },
   . . .
InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
   cell
                            Cell-InfEx-Rsp,
   . . .
Cell-InfEx-Rsp ::= SEQUENCE {
   requestedDataValue
                                RequestedDataValue,
   iE-Extensions
                                ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }
                                                                                         OPTIONAL,
   . . .
CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      -- INFORMATION EXCHANGE INITIATION FAILURE
  InformationExchangeInitiationFailure ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{InformationExchangeInitiationFailure-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}
                                                                                                    OPTIONAL,
InformationExchangeInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
    ID
          id-InformationExchangeID
                                              CRITICALITY
                                                            ignore
                                                                           TYPE
                                                                                  InformationExchangeID
                                                                                                              PRESENCE mandatory
     ID
          id-Cause
                                                                          TYPE
                                                                                                              PRESENCE mandatory
                                              CRITICALITY
                                                            ignore
                                                                                  Cause
   { ID
          id-CriticalityDiagnostics
                                              CRITICALITY
                                                            ignore
                                                                           TYPE
                                                                                  CriticalityDiagnostics
                                                                                                              PRESENCE optional },
InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- INFORMATION REPORT
```

```
__ *********************
InformationReport ::= SEOUENCE {
   protocolIEs
                ProtocolIE-Container {{InformationReport-IEs}},
   protocolExtensions
ProtocolExtensionContainer {{InformationReport-Extensions}}
                                                                                       OPTIONAL,
InformationReport-IES RNSAP-PROTOCOL-IES ::= {
   { ID
         id-InformationExchangeID
                                                      CRITICALITY ignore
                                                                                TYPE
                                                                                       InformationExchangeID
                                                                                                                               PRESENCE
   mandatory }|
          id-InformationExchangeObjectType-InfEx-Rprt
                                                      CRITICALITY ignore
                                                                                TYPE
                                                                                       InformationExchangeObjectType-InfEx-Rprt
                                                                                                                              PRESENCE
   mandatory },
   . . .
InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
}
InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
   cell
                                Cell-InfEx-Rprt,
   . . .
Cell-InfEx-Rprt ::= SEOUENCE {
   requestedDataValueInformation
                                RequestedDataValueInformation,
                                ProtocolExtensionContainer {{ CellItem-InfEx-Rprt-ExtIEs }}
   iE-Extensions
                                                                                           OPTIONAL,
CellItem-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  INFORMATION EXCHANGE TERMINATION REQUEST
  InformationExchangeTerminationRequest ::= SEQUENCE {
                         ProtocolIE-Container
                                               {{InformationExchangeTerminationRequest-IEs}},
   protocolIEs
                         ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
   protocolExtensions
                                                                                                      OPTIONAL,
   . . .
InformationExchangeTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-InformationExchangeID
                                                                            TYPE
                                                                                   InformationExchangeID
                                                                                                              PRESENCE mandatory },
                                     CRITICALITY
                                                          ignore
```

```
InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ******************
-- INFORMATION EXCHANGE FAILURE INDICATION
__ ********************
InformationExchangeFailureIndication ::= SEQUENCE {
   protocolIEs
                     ProtocolIE-Container
                                           {{InformationExchangeFailureIndication-IEs}},
                          ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
InformationExchangeFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
         id-InformationExchangeID
                                        CRITICALITY ignore
                                                                TYPE
                                                                       InformationExchangeID
                                                                                               PRESENCE mandatory
   { ID
         id-Cause
                                        CRITICALITY ignore
                                                                                               PRESENCE mandatory
                                                                TYPE
   . . .
InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RESET REQUEST
  ResetRequest ::= SEOUENCE {
   protocolIEs
                       ProtocolIE-Container
                                            {{ResetRequest-IEs}},
                       ProtocolExtensionContainer {{ResetRequest-Extensions}}
   protocolExtensions
                                                                          OPTIONAL,
   . . .
ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-RNC-ID
                   CRITICALITY reject TYPE RNC-ID
                                                         PRESENCE mandatory |
   { ID id-ResetIndicator
                          CRITICALITY reject TYPE ResetIndicator
                                                                       PRESENCE
                                                                                 mandatory \},
ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
ResetIndicator ::= CHOICE {
    context
                    ContextList-Reset,
   all-contexts
                       NULL,
    . . . ,
    contextGroup
                    ContextGroupList-Reset
ContextList-Reset ::= SEOUENCE {
    contextInfoList-Reset
                                ContextInfoList-Reset,
                                            ProtocolExtensionContainer { {ContextItem-Reset-ExtIEs} }
    iE-Extensions
                                                                                                           OPTIONAL,
    . . .
ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}
ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextInfoItem-Reset
                                        CRITICALITY reject
                                                                                                PRESENCE mandatory }
                                                                TYPE ContextInfoItem-Reset
ContextInfoItem-Reset ::= SEQUENCE {
    contextType-Reset
                                ContextType-Reset,
                                ProtocolExtensionContainer { { ContextInfoItem-Reset-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextType-Reset ::= CHOICE {
    sRNTI
                    S-RNTI,
    dRNTI
                    D-RNTI,
    . . .
ContextGroupList-Reset ::= SEQUENCE {
    contextGroupInfoList-Reset
                                    ContextGroupInfoList-Reset,
                                    ProtocolExtensionContainer { {ContextGroupItem-Reset-ExtIEs} }
    iE-Extensions
                                                                                                        OPTIONAL,
ContextGroupItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextGroupInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContextGroup)) OF ProtocolIE-Single-Container {{ ContextGroupInfoItemIE-Reset }}
```

```
ContextGroupInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextGroupInfoItem-Reset
                                       CRITICALITY reject
                                                             TYPE ContextGroupInfoItem-Reset
                                                                                             PRESENCE mandatory }
ContextGroupInfoItem-Reset ::= SEQUENCE {
   s-RNTI-Group
                            S-RNTI-Group,
                            ProtocolExtensionContainer { { ContextGroupInfoItem-Reset-ExtIEs} }
   iE-Extensions
                                                                                             OPTIONAL,
ContextGroupInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RESET RESPONSE
__ **********************
ResetResponse ::= SEQUENCE {
                        ProtocolIE-Container {{ResetResponse-IEs}},
   protocolIEs
                        ProtocolExtensionContainer {{ResetResponse-Extensions}}
   protocolExtensions
                                                                                       OPTIONAL,
ResetResponse-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RNC-ID
                            CRITICALITY ignore TYPE RNC-ID
                                                             PRESENCE mandatory}
                                                                    CriticalityDiagnostics
   { ID id-CriticalityDiagnostics
                                    CRITICALITY
                                                  ignore
                                                                                             PRESENCE optional },
   . . .
ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ACTIVATION COMMAND FDD
  ****************
RadioLinkActivationCommandFDD ::= SEQUENCE {
                        ProtocolIE-Container
                                               {{RadioLinkActivationCommandFDD-IEs}},
   protocolIEs
                         ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}
   protocolExtensions
                                                                                                OPTIONAL,
   . . .
RadioLinkActivationCommandFDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DelayedActivationList-RL-ActivationCmdFDD
                                                          CRITICALITY reject TYPE
                                                                                     DelayedActivationInformationList-RL-ActivationCmdFDD
   PRESENCE
               mandatory },
    . . .
RadioLinkActivationCommandFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdFDD
                                                             CRITICALITY reject TYPE DelayedActivationInformation-RL-ActivationCmdFDD PRESENCE
optional }
DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
                               RL-ID,
    delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                               ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ACTIVATION COMMAND TDD
   *****************
RadioLinkActivationCommandTDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                  {{RadioLinkActivationCommandTDD-IEs}},
   protocolExtensions
                           ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}}
                                                                                                        OPTIONAL,
RadioLinkActivationCommandTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationList-RL-ActivationCmdTDD
                                                          CRITICALITY reject TYPE
                                                                                     DelayedActivationInformationList-RL-ActivationCmdTDD
    PRESENCE
               mandatory },
RadioLinkActivationCommandTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
```

```
{ DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdTDD-IES RNSAP-PROTOCOL-IES ::= {
   optional
DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
   delayed-activation-update
                           DelayedActivationUpdate,
   iE-Extensions
                           ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
   . . .
DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- GERAN UPLINK SIGNALLING TRANSFER INDICATION
  ************************
GERANUplinkSignallingTransferIndication ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{GERANUplinkSignallingTransferIndication-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{GERANUplinkSignallingTransferIndication-Extensions}} OPTIONAL,
GERANUplinkSignallingTransferIndication-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-UC-ID
                                                                                   PRESENCE mandatory
                                  CRITICALITY ignore TYPE UC-ID
   -- UC-Id may be GERAN cell identifier.
   { ID id-SAI
                                                                                   PRESENCE mandatory
                                  CRITICALITY ignore TYPE SAI
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                   PRESENCE mandatory
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                   PRESENCE optional
    ID id-L3-Information
                                  CRITICALITY ignore TYPE L3-Information
                                                                                   PRESENCE mandatory
    ID id-CN-PS-DomainIdentifier
                                  CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                   PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                  CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                   PRESENCE optional
   { ID id-URA-Information
                                  CRITICALITY ignore TYPE URA-Information
                                                                                   PRESENCE optional
   -- URA information may be GRA information
GERANUplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *******************
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
```

```
RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                  {{RadioLinkParameterUpdateIndicationFDD-IEs}},
                          ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationFDD-Extensions}}
   protocolExtensions
                                                                                                                  OPTIONAL,
RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
           id-HSDSCH-FDD-Update-Information
                                                                 CRITICALITY reject TYPE
                                                                                            HSDSCH-FDD-Update-Information
                                                                                                                                PRESENCE
   optional}|
    { ID
          id-RL-ParameterUpdateIndicationFDD-RL-InformationList CRITICALITY reject TYPE
                                                                                            RL-ParameterUpdateIndicationFDD-RL-InformationList
   PRESENCE optional },
RL-ParameterUpdateIndicationFDD-RL-InformationList ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { { RL-
ParameterUpdateIndicationFDD-RL-InformationList-IEs} }
RL-ParameterUpdateIndicationFDD-RL-InformationList-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ParameterUpdateIndicationFDD-RL-Information-Item
                                                                 CRITICALITY reject TYPE RL-ParameterUpdateIndicationFDD-RL-Information-Item
   PRESENCE mandatory }
RL-ParameterUpdateIndicationFDD-RL-Information-Item::= SEQUENCE {
                                      RL-ID,
                                      Phase-Reference-Update-Indicator
   phase-Reference-Update-Indicator
   iE-Extensions
                                      ProtocolExtensionContainer { { RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkParameterUpdateIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK PARAMETER UPDATE INDICATION TDD
RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE
                          ProtocolIE-Container
                                                  {{RadioLinkParameterUpdateIndicationTDD-IEs}},
   protocolIEs
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationTDD-Extensions}}
                                                                                                                  OPTIONAL,
```

HSDSCH-TDD-Update-Information

PRESENCE optional },

```
RadioLinkParameterUpdateIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
         id-HSDSCH-TDD-Update-Information
                                                        reject
                                                                  TYPE
   . . .
RadioLinkParameterUpdateIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- PRIVATE MESSAGE
__ ********************
PrivateMessage ::= SEQUENCE {
   privateIEs
             PrivateIE-Container {{PrivateMessage-IEs}},
   . . .
PrivateMessage-IEs RNSAP-PRIVATE-IES ::= {
END
```

9.3.4 Information Element Definitions

maxNoOfUSCHs, maxNoTFCIGroups, maxNoCodeGroups, maxNrOfDCHs, maxNrOfDL-Codes, maxNrOfDLTs. maxNrOfDLTsLCR, maxNrOfDPCHs,

```
maxNrOfDPCHsLCR,
maxNrOfErrors,
maxNrOfFDDNeighboursPerRNC,
maxNrOfMACcshSDU-Length,
maxNrOfNeighbouringRNCs,
maxNrOfTDDNeighboursPerRNC,
maxNrOfLCRTDDNeighboursPerRNC,
maxNrOfTS,
maxNrOfULTs,
maxNrOfULTsLCR,
maxNrOfGSMNeighboursPerRNC,
maxRateMatching,
maxNrOfPoints,
maxNoOfRB,
maxNrOfRLs,
maxNrOfTFCs,
maxNrOfTFs,
maxCTFC,
maxRNCinURA-1,
maxNrOfSCCPCHs,
maxTFCI1Combs,
maxTFCI2Combs,
maxTFCI2Combs-1,
maxTGPS,
maxTTI-Count,
maxNoGPSTypes,
maxNoSat,
maxNrOfSNAs,
maxNrOfHAROProc,
maxNrOfHSSCCHCodes,
maxNrOfMACdFlows,
maxNrOfMACdFlows-1,
maxNrOfPDUIndexes,
maxNrOfPDUIndexes-1,
maxNrOfPrioQueues,
maxNrOfPrioQueues-1,
maxNrOfPriorityClasses,
id-Allowed-Rate-Information,
id-AntennaColocationIndicator,
id-BindingID,
id-Cell-Capacity-Class-Value,
id-CellCapabilityContainer-FDD,
```

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FROM RNSAP-Constants

id-NRTLoadInformationValue

```
Criticality,
    ProcedureID,
   ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes
    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
   RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;
-- A
AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN
    transmission-Gap-Pattern-Sequence-Status
                                                Transmission-Gap-Pattern-Sequence-Status-List
                                                                                                  OPTIONAL,
    iE-Extensions
                       ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
AdjustmentPeriod
                           ::= INTEGER(1..256)
-- Unit Frame
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                                PriorityLevel,
                                Pre-emptionCapability,
   pre-emptionCapability
   pre-emptionVulnerability
                                Pre-emptionVulnerability,
                           ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate-Information
                           ::= SEQUENCE {
    allowed-UL-Rate
                           Allowed-Rate OPTIONAL,
    allowed-DL-Rate
                           Allowed-Rate OPTIONAL,
```

```
iE-Extensions
                           ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate
                     ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
AllowedQueuingTime
                         ::= INTEGER (1..60)
-- seconds
AlphaValue
                           ::= INTEGER (0..8)
-- Actual value = Alpha / 8
Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
                          AOA-LCR,
    aOA-LCR-Accuracy-Class AOA-LCR-Accuracy-Class,
   iE-Extensions
                      ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
Angle-Of-Arrival-Value-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD
AOA-LCR-Accuracy-Class ::= ENUMERATED \{a,b,c,d,e,f,g,h,...\}
AntennaColocationIndicator ::= ENUMERATED {
   co-located,
-- B
BadSatellites ::= SEQUENCE {
   badSatelliteInformation
                               SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
           badSAT-ID
                                       SAT-ID,
                                       ProtocolExtensionContainer { { BadSatelliteInformation-ExtIEs} }
                                                                                                            OPTIONAL,
           iE-Extensions
       },
                               ProtocolExtensionContainer { { BadSatellites-ExtIEs} }
    iE-Extensions
                                                                                           OPTIONAL,
```

```
BadSatelliteInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
BadSatellites-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Band-Indicator ::= ENUMERATED {
   dcs1800Band,
   pcs1900Band,
   . . .
BCC ::= BIT STRING (SIZE (3))
BCCH-ARFCN ::= INTEGER (0..1023)
BetaCD ::= INTEGER (0..15)
BindingID
           ::= OCTET STRING (SIZE (1..4,...))
-- If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2.
BLER
                      ::= INTEGER (-63..0)
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER
SCTD-Indicator ::= ENUMERATED {
   active,
   inactive
BSIC ::= SEQUENCE {
   nCC
               NCC,
   bCC
               BCC
BurstModeParameters ::= SEQUENCE {
   burstStart INTEGER (0..15),
   burstLength INTEGER (10..25),
   burstFreq
                   INTEGER (1..16),
                               ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }
   iE-Extensions
                                                                                               OPTIONAL,
BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Cause ::= CHOICE {
```

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```
radioNet.work
                        CauseRadioNetwork,
    transport
                        CauseTransport,
    protocol
                        CauseProtocol,
   misc
                        CauseMisc,
    . . .
CauseMisc ::= ENUMERATED {
    control-processing-overload,
   hardware-failure,
    om-intervention,
   not-enough-user-plane-processing-resources,
   unspecified,
    . . .
CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID.
    cell-not-available,
    power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    combining-not-supported,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    requested-tx-diversity-mode-not-supported,
    measurement-temporaily-not-available,
    unspecified,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
   number-of-DL-codes-not-supported,
    dedicated-transport-channel-type-not-supported,
    dl-shared-channel-type-not-supported,
   ul-shared-channel-type-not-supported,
    common-transport-channel-type-not-supported,
    ul-spreading-factor-not-supported,
```

```
dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b.
    rl-already-activated-or-alocated,
    number-of-UL-codes-not-supported,
    cell-reserved-for-operator-use,
    dpc-mode-change-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    power-balancing-status-not-compatible,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported,
    unknown-RNTI
CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
CellCapabilityContainer-FDD ::= BIT STRING (SIZE (32))
-- First bit: Flexible Hard Split Support Indicator
-- Second bit: Delayed Activation Support Indicator
-- Third bit: HS-DSCH Support Indicator
-- Fourth bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD-LCR ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
C-ID
                       ::= INTEGER (0..65535)
CCTrCH-ID
                       ::= INTEGER (0..15)
Cell-Capacity-Class-Value ::= SEQUENCE {
       uplinkCellCapacityClassValue
                                            INTEGER(1..100,...),
        downlinkCellCapacityClassValue
                                            INTEGER(1..100,...)
```

```
CellIndividualOffset
                      ::= INTEGER (-20..20)
CellParameterID
                           ::= INTEGER (0..127,...)
CFN
                  ::= INTEGER (0..255)
CGI ::= SEQUENCE {
   lai
               SEQUENCE {
       pLMN-Identity PLMN-Identity,
       lac
                       LAC,
       iE-Extensions
                                ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
        . . .
   сI
                   CI,
                           ProtocolExtensionContainer { (CGI-ExtIEs) } OPTIONAL
    iE-Extensions
LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ChannelCodingType ::= ENUMERATED {
   no-codingTDD,
   convolutional-coding,
   turbo-coding,
ChipOffset
                      ::= INTEGER (0..38399)
CI
                    ::= OCTET STRING (SIZE (2))
ClosedLoopModel-SupportIndicator
                                   ::= ENUMERATED {
    closedLoop-Model-Supported,
    closedLoop-Model-not-Supported
ClosedLoopMode2-SupportIndicator
                                   ::= ENUMERATED {
    closedLoop-Mode2-Supported,
    closedLoop-Mode2-not-Supported
Closedlooptimingadjustmentmode ::= ENUMERATED {
    adj-1-slot,
   adj-2-slot,
```

```
CodeNumber ::= INTEGER (0..maxCodeNumComp-1)
CodingRate ::= ENUMERATED {
   half,
    third,
    . . .
CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass
                                            TUTRANGPSAccuracyClass,
    . . .
CommonMeasurementType ::= ENUMERATED {
   uTRAN-GPS-timing-of-cell-frames-for-UE-Positioning,
    sFN-SFN-observerd-time-difference,
   load,
    transmitted-carrier-power,
    received-total-wide-band-power,
    uplink-timeslot-iscp,
   rT-load,
   nRT-load-Information
-- For measurements on the Iur-q interface, only load, RT Load and NRT Load information are requested.
CommonMeasurementValue ::= CHOICE {
    tUTRANGPSMeasurementValueInformation
                                            TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation
                                            SFNSFNMeasurementValueInformation,
    loadValue
                                        LoadValue,
    transmittedCarrierPowerValue
                                        INTEGER(0..100),
    receivedTotalWideBandPowerValue
                                        INTEGER(0..621),
    uplinkTimeslotISCPValue
                                        UL-TimeslotISCP,
   extension-CommonMeasurementValue
                                        Extension-CommonMeasurementValue
                                        RTLoadValue,
   nPTI oadInformationValue
                                        NRTLoadInformationValue
Extension-CommonMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}
Extension-CommonMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
     ID id-RTLoadValue CRITICALITY ignore TYPE RTLoadValue
                                                                PRESENCE mandatory }
     ID id-NRTLoadInformationValue CRITICALITY ignore TYPE NRTLoadInformationValue
                                                                                        PRESENCE mandatory }
-- For measurements on the Iur-g interface, only load, RT Load and NRT Load values are reported.
CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                                CommonMeasurementAvailable,
```

```
measurementnotAvailable
                                NULL
CommonMeasurementAvailable::= SEQUENCE {
    commonMeasurementValue
                                CommonMeasurementValue,
    iE-Extensions
                                     ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} } 
                                                                                                                   OPTIONAL,
    . . .
CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CongestionCause ::= ENUMERATED
    uTRAN-dynamic-resources,
    uTRAN-semistatic-resources,
    . . .
CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED {
    not-Required
CoverageIndicator ::= ENUMERATED {
    overlap,
    covers,
    containedIn,
    . . .
                        ::= ENUMERATED {
CRC-Size
    ν0,
    v8,
    v12,
    v16,
    v24,
    . . .
CriticalityDiagnostics ::= SEQUENCE {
    procedureID
                                ProcedureID
                                                     OPTIONAL,
    triggeringMessage
                                TriggeringMessage
                                                         OPTIONAL,
                                                         OPTIONAL,
    procedureCriticality
                                Criticality
                                TransactionID
                                                         OPTIONAL,
    transactionID
    iEsCriticalityDiagnostics
                                    CriticalityDiagnostics-IE-List OPTIONAL,
                                ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
       iECriticality
                                Criticality,
       iE-ID
                                ProtocolIE-ID,
       repetitionNumber
                                RepetitionNumber0
                                                        OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   ID id-MessageStructure
                                                                                        PRESENCE optional }
                                CRITICALITY ignore
                                                        EXTENSION MessageStructure
   ID id-TypeOfError
                                CRITICALITY ignore
                                                        EXTENSION TypeOfError
                                                                                        PRESENCE mandatory },
    . . .
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
   SEQUENCE {
       iE-ID
                                ProtocolIE-ID,
        repetitionNumber
                                RepetitionNumber1
                                                        OPTIONAL.
       iE-Extensions
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                       PLMN-Identity,
    1AC
    iE-Extensions
                        ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                        PLMN-Identity,
   lAC
                        LAC,
   rAC
                        RAC,
    iE-Extensions
                        ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
CNDomainType
                ::= ENUMERATED {
   cs-domain,
   ps-domain,
   dont-care,
    . . .
-- See in [16]
CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,...}
COI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
C-RNTI
                        ::= INTEGER (0..65535)
-- D
DATA-ID ::= INTEGER (0..3)
DCH-FDD-Information
                        ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem
DCH-FDD-InformationItem ::= SEQUENCE {
   payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
   ul-FP-Mode
                                        UL-FP-Mode,
    t.oAWS
                                        ToAWS,
                                        TOAWE,
    toAWE
   dCH-SpecificInformationList
                                        DCH-Specific-FDD-InformationList,
                                        ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item
DCH-Specific-FDD-Item ::= SEQUENCE {
    dCH-ID
                                        DCH-ID,
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
   ul-transportFormatSet
                                        TransportFormatSet,
    dl-transportFormatSet
                                        TransportFormatSet,
   ul-BLER
                                        BLER,
    dl-BLER
                                        BLER,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    frameHandlingPriority
                                        FrameHandlingPriority,
    qE-Selector
                                        QE-Selector,
    dRACControl
                                        DRACControl,
    iE-Extensions
                                        ProtocolExtensionContainer { {DCH-FDD-SpecificItem-ExtIEs} } OPTIONAL,
```

```
DCH-FDD-SpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                           PRESENCE optional } |
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory |
    { ID id-Unidirectional-DCH-Indicator
                                                CRITICALITY ignore EXTENSION Unidirectional-DCH-Indicator
                                                                                                             PRESENCE optional },
DCH-ID
                       ::= INTEGER (0..255)
DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem
DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID
   bindingID
                                BindingID
                                                        OPTIONAL,
    transportLayerAddress
                                TransportLayerAddress OPTIONAL,
                                ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Allowed-Rate-Information
                                           CRITICALITY ignore EXTENSION Allowed-Rate-Information
                                                                                                       PRESENCE optional },
                       ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem
DCH-TDD-Information
DCH-TDD-InformationItem ::= SEQUENCE {
                                        PayloadCRC-PresenceIndicator,
    payloadCRC-PresenceIndicator
   ul-FP-Mode
                                        UL-FP-Mode,
    toAWS
                                        ToAWS,
    toAWE
                                        ToAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-TDD-InformationList,
                                        ProtocolExtensionContainer { {DCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item
DCH-Specific-TDD-Item ::= SEQUENCE {
    dCH-ID
                                        DCH-ID,
   ul-cCTrCH-ID
                                        CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
   dl-cCTrCH-ID
                                        CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
    ul-transportFormatSet
                                        TransportFormatSet,
```

```
dl-transportFormatSet
                                     TransportFormatSet,
   ul-BLER
                                     BLER,
   dl-BLER
                                     BLER,
   allocationRetentionPriority
                                     AllocationRetentionPriority,
   frameHandlingPriority
                                     FrameHandlingPriority,
   qE-Selector
                                     QE-Selector
                                                        OPTIONAL,
   -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
                                     ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                         CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                    PRESENCE optional }
     ID id-TrafficClass
                             CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory |
   { ID id-Unidirectional-DCH-Indicator
                                            CRITICALITY ignore EXTENSION Unidirectional-DCH-Indicator
                                                                                                      PRESENCE optional },
DedicatedMeasurementType ::= ENUMERATED {
   sir.
   sir-error.
   transmitted-code-power,
   rx-timing-deviation,
   round-trip-time,
   rx-timing-deviation-LCR,
   angle-Of-Arrival-LCR,
   hs-sich-quality
DedicatedMeasurementValue ::= CHOICE {
   sIR-Value
                      SIR-Value,
   sIR-ErrorValue
                          SIR-Error-Value,
   transmittedCodePowerValue Transmitted-Code-Power-Value,
                      RSCP-Value, -- TDD only
   rxTimingDeviationValue Rx-Timing-Deviation-Value, -- 3.84Mcps TDD only
   roundTripTime
                      Round-Trip-Time-Value, -- FDD only
   extension-DedicatedMeasurementValue
                                         Extension-DedicatedMeasurementValue
Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}
Extension-DedicatedMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
     ID id-Angle-Of-Arrival-Value-LCR
                                         CRITICALITY reject TYPE Angle-Of-Arrival-Value-LCR PRESENCE mandatory }
    ID id-HS-SICH-Reception-Quality
                                         CRITICALITY reject TYPE HS-SICH-Reception-Quality-Value PRESENCE mandatory },
```

OPTIONAL,

```
DedicatedMeasurementValueInformation ::= CHOICE {
   measurementAvailable
                              DedicatedMeasurementAvailable,
   measurementnotAvailable
                              DedicatedMeasurementnotAvailable
DedicatedMeasurementAvailable::= SEQUENCE {
   dedicatedmeasurementValue
                                  DedicatedMeasurementValue,
                                                         OPTIONAL,
   ie-Extensions
                                  DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementnotAvailable ::= NULL
DelayedActivation ::= CHOICE {
                          CFN,
   separate-indication
                          NULL
DelayedActivationUpdate ::= CHOICE {
   activate
                  Activate-Info,
   deactivate
                  Deactivate-Info
Activate-Info ::= SEQUENCE {
   activation-type
                          Execution-Type,
   initial-dl-tx-power
                          DL-Power,
    firstRLS-Indicator
                          FirstRLS-Indicator
                                                                                   OPTIONAL, --FDD Only
   propagation-delay
                          PropagationDelay
                                                                                   OPTIONAL, --FDD Only
                          ProtocolExtensionContainer { { Activate-Info-ExtIEs} }
   iE-Extensions
                                                                                   OPTIONAL,
    . . .
Activate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
Deactivate-Info ::= SEOUENCE {
   deactivation-type
                          Execution-Type,
                          ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }
   iE-Extensions
                                                                                       OPTIONAL,
    . . .
Deactivate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Execution-Type ::= CHOICE {
    synchronised
    unsynchronised NULL
 DeltaSIR
                  ::= INTEGER (0..30)
 -- Step 0.1 dB, Range 0..3 dB.
 DGPSCorrections ::= SEQUENCE {
    qPST0W
                                  GPSTOW,
    gPS-Status-Health
                                  GPS-Status-Health,
    satellite-DGPSCorrections-Information SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
          sAT-ID
                                     SAT-ID,
          iode-dgps
                                     BIT STRING (SIZE (8)),
          uDRE
                                     UDRE,
          pRC
                                     PRC,
          range-Correction-Rate
                                     Range-Correction-Rate,
          iE-Extensions
                                     ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }
                                                                                                    OPTIONAL,
       },
                            iE-Extensions
                                                                           OPTIONAL,
 Satellite-DGPSCorrections-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
 DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
 DGPSThreshold ::= SEQUENCE {
    pRCDeviation
                   PRCDeviation,
    iE-Extensions
                  OPTIONAL,
 DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
 DiscardTimer ::= ENUMERATED
```

```
DiversityControlField
                                ::= ENUMERATED {
    may,
    must,
    must-not
                           ::= ENUMERATED {
DiversityMode
   none,
    sTTD,
   closedLoopModel,
   closedLoopMode2,
DL-DPCH-SlotFormat
                           ::= INTEGER (0..16,...)
DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
DL-Power
                      ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step 0.1dB
DL-PowerBalancing-Information ::= SEQUENCE {
   powerAdjustmentType
                                        PowerAdjustmentType,
   dLReferencePower
                                        DL-Power
                                                        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rgst
                                        DL-ReferencePowerInformationList
                                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep
                                        MaxAdjustmentStep
                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod
                                       AdjustmentPeriod
                                                               OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                                        ScaledAdjustmentRatio OPTIONAL,
    adjustmentRatio
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                                        ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    iE-Extensions
    . . .
DL-PowerBalancing-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-ReferencePowerInformationList
                                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem
DL-ReferencePowerInformationItem ::= SEQUENCE {
```

```
rL-ID
                                RL-ID,
    dl-Reference-Power
                                DL-Power,
                                ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-PowerBalancing-ActivationIndicator ::= ENUMERATED {
    dL-PowerBalancing-Activated
DL-PowerBalancing-UpdatedIndicator ::= ENUMERATED {
    dL-PowerBalancing-Updated
DL-ReferencePowerInformation
                                ::= SEQUENCE {
    common-DL-ReferencePowerInformation
                                                DL-Power
                                                                OPTIONAL,
    individual-DL-ReferencePowerInformation
                                                DL-ReferencePowerInformationList
                                                                                        OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
DL-ReferencePowerInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
D-RNTI
                        ::= INTEGER (0..1048575)
D-RNTI-ReleaseIndication ::= ENUMERATED {
    release-D-RNTI,
   not-release-D-RNTI
DL-ScramblingCode
                           ::= INTEGER (0..15)
DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
DL-Timeslot-Information ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem
DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
    tFCI-Presence
                                    TFCI-Presence,
    dL-Code-Information
                                    TDD-DL-Code-Information,
```

```
iE-Extensions
                               ProtocolExtensionContainer { {DL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
DL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-Information ::= SEOUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF DL-TimeslotLCR-InformationItem
DL-TimeslotLCR-InformationItem ::= SEQUENCE {
   timeSlotLCR
                                     TimeSlotLCR,
   midambleShiftLCR
                                     MidambleShiftLCR,
   tFCI-Presence
                                     TFCI-Presence,
   dL-Code-LCR-Information
                                  TDD-DL-Code-LCR-Information,
   iE-Extensions
                                      ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }
                                                                                                      OPTIONAL,
   . . .
DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   PRESENCE optional } |
   -- Applicable to 1.28Mcps TDD only
   PRESENCE optional },
                                                                     EXTENSION DL-Power
   -- Applicable to 1.28Mcps TDD only
DL-TimeSlot-ISCP-Info ::= SEOUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem
DL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
   timeSlot
                           TimeSlot,
   dL-TimeslotISCP
                           DL-TimeslotISCP,
   iE-Extensions
                           ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem
DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
   timeSlotLCR
                              TimeSlotLCR,
   dL-TimeslotISCP
                               DL-TimeslotISCP,
                               iE-Extensions
                                                                                              OPTIONAL,
   . . .
DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-TimeslotISCP
                        ::= INTEGER (0..91)
-- According to mapping in [24]
Downlink-Compressed-Mode-Method
                                    ::= ENUMERATED {
   puncturing,
   sFdiv2,
   higher-layer-scheduling,
DPC-Mode ::= ENUMERATED {
   mode0,
   mode1,
DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
   dPC-ModeChangeSupported
DPCH-ID
                       ::= INTEGER (0..239)
DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
DRACControl
                ::= ENUMERATED {
   requested,
   not-requested
DRXCycleLengthCoefficient
                                        ::= INTEGER (3..9)
-- See in [16]
DSCH-FDD-Information::= SEQUENCE {
   dSCH-Specific-Information
                                        DSCH-Specific-FDD-Item,
-- This DSCH-Specific-FDD-Item is the first DSCH-Specific-FDD-Item in DSCH-FDD-Information. If more than one DSCH-Specific-FDD-Item; s should be defined
in a DSCH-FDD-Information, from 2<sup>nd</sup> DSCH-Specific-FDD Item, they will be included in the DSCH-Specific-FDD-Additional-List in the DSCH-FDD-Information-
ExtIEs.
   pdSCH-RL-ID
                                        RL-ID,
   t.FCS
                                        TFCS,
                                        ProtocolExtensionContainer { {DSCH-FDD-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-Specific-FDD-Additional-List
                                                    CRITICALITY reject EXTENSION DSCH-Specific-FDD-Additional-List
                                                                                                                           PRESENCE optional } |
    { ID id-EnhancedDSCHPC
                                        CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                                      PRESENCE optional },
```

```
DSCH-RNTI ::= INTEGER (0..65535)
DSCH-Specific-FDD-Item ::= SEQUENCE {
    dscH-ID
                                      DSCH-ID,
   trChSourceStatisticsDescriptor
                                      TrCH-SrcStatisticsDescr,
    transportFormatSet
                                      TransportFormatSet,
   allocationRetentionPriority
                                      AllocationRetentionPriority,
    schedulingPriorityIndicator
                                      SchedulingPriorityIndicator,
   bLER
                                      BLER,
    iE-Extensions
                                      ProtocolExtensionContainer { {DSCH-Specific-FDD-Item-ExtIEs} } OPTIONAL,
    . . .
DSCH-Specific-FDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                                             PRESENCE mandatory } |
    { ID id-TrafficClass
                              CRITICALITY ignore EXTENSION TrafficClass
    { ID id-BindingID
                                          CRITICALITY ignore
                                                                             BindingID
                                                                                                                optional }|
                                                                  EXTENSION
                                                                                             PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                                                                                                   optional },
                                          CRITICALITY ignore
                                                                  EXTENSION
                                                                             TransportLayerAddress
                                                                                                       PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-Specific-FDD-Additional-List ::= SEQUENCE (SIZE(1..maxNoOfDSCHs-1)) OF DSCH-Specific-FDD-Item
DSCH-FDD-InformationResponse ::= SEQUENCE {
    dsch-Specific-InformationResponse
                                      DSCH-Specific-FDD-InformationResponse,
                                      PDSCHCodeMapping,
   pdSCHCodeMapping
   iE-Extensions
                                      DSCH-FDD-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Specific-FDD-InformationResponse ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-Specific-FDD-Response-Item
DSCH-Specific-FDD-Response-Item ::= SEQUENCE {
   dsch-ID
                                   DSCH-ID,
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                                  BindingID
                                                          OPTIONAL,
                                  TransportLayerAddress OPTIONAL,
    transportLayerAddress
                                   ProtocolExtensionContainer { {DSCH-Specific-FDD-Response-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-Specific-FDD-Response-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DSCH-FlowControlInformation ::= SEQUENCE (SIZE(1..16)) OF DSCH-FlowControlItem
DSCH-FlowControlItem ::= SEOUENCE {
    dSCH-SchedulingPriority
                                        SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths
                                        MAC-c-sh-SDU-LengthList,
                                        ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-InitialWindowSize CRITICALITY ignore EXTENSION DSCH-InitialWindowSize PRESENCE optional },
    . . .
DSCH-ID
                       ::= INTEGER (0..255)
DSCH-InitialWindowSize
                                ::= INTEGER (1..255)
-- Number of MAC-c/sh SDUs.
-- 255 = Unlimited number of MAC-c/sh SDUs
DSCH-TDD-Information ::= SEOUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem
DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID
   dl-ccTrCHID
                                        CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
   bler
                                        BLER,
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
DSCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID
                                                                                                PRESENCE
                                                                                                                     optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
-- E
EnhancedDSCHPC ::= SEQUENCE {
    enhancedDSCHPCWnd EnhancedDSCHPCWnd,
    enhancedDSCHPCCounter EnhancedDSCHPCCounter,
    enhancedDSCHPowerOffset EnhancedDSCHPowerOffset,
```

```
EnhancedDSCHPCCounter ::= INTEGER (1..50)
EnhancedDSCHPCIndicator ::= ENUMERATED {
    enhancedDSCHPCActiveInTheUE,
    enhancedDSCHPCNotActiveInTheUE
EnhancedDSCHPCWnd ::= INTEGER (1..10)
EnhancedDSCHPowerOffset ::= INTEGER (-15..0)
Enhanced-PrimaryCPICH-EcNo ::= INTEGER (0..49)
EventA ::= SEQUENCE {
   measurementTreshold
                           MeasurementThreshold,
   measurementHysteresisTime MeasurementHysteresisTime
                           ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventB ::= SEQUENCE {
    measurementTreshold
                           MeasurementThreshold,
    measurementHysteresisTime MeasurementHysteresisTime
   iE-Extensions
                           ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventC ::= SEQUENCE {
    {\tt measurementIncreaseDecreaseThreshold} \qquad {\tt MeasurementIncreaseDecreaseThreshold} \,,
    measurementChangeTime
                               MeasurementChangeTime,
                           ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
    iE-Extensions
EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventD ::= SEQUENCE {
   measurementIncreaseDecreaseThreshold MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                               MeasurementChangeTime,
```

```
iE-Extensions
                           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventE ::= SEOUENCE {
   measurementThreshold1
                                MeasurementThreshold,
   measurementThreshold2
                                MeasurementThreshold
                                                                OPTIONAL,
   measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
   reportPeriodicity
                           ReportPeriodicity
                                                        OPTIONAL,
   iE-Extensions
                           ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventF ::= SEOUENCE {
   measurementThreshold1
                                MeasurementThreshold,
   measurementThreshold2
                                MeasurementThreshold
                                                                OPTIONAL,
   measurementHysteresisTime
                               MeasurementHysteresisTime
                                                                OPTIONAL,
   reportPeriodicity
                            ReportPeriodicity
                                                        OPTIONAL,
                            ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExtendedGSMCellIndividualOffset ::= INTEGER (-50..-11|11..50)
-- F
FACH-FlowControlInformation ::= SEQUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem
FACH-FlowControlInformationItem ::= SEQUENCE {
    fACH-SchedulingPriority
                                    SchedulingPriorityIndicator,
   mAC-c-sh-SDU-Lengths
                                    MAC-c-sh-SDU-LengthList,
                                    FACH-InitialWindowSize,
    fACH-InitialWindowSize
   iE-Extensions
                                    ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
FACH-InitialWindowSize
                                ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames
FACH-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfFACHs)) OF FACH-InformationItem
FACH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                    ProtocolExtensionContainer { { FACH-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
FACH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-PCH-InformationList ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem
FACH-PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                    ProtocolExtensionContainer { { FACH-PCH-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
FACH-PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-DCHs-to-Modify
                                ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem
FDD-DCHs-to-ModifyItem ::= SEQUENCE {
   ul-FP-Mode
                                        UL-FP-Mode
                                                        OPTIONAL,
                                                    OPTIONAL,
    toAWS
                                        ToAWS
    toAWE
                                        ToAWE
                                                    OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
   dCH-SpecificInformationList
                                        FDD-DCHs-to-ModifySpecificInformationList,
   iE-Extensions
                                        ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifySpecificItem
FDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
   dCH-ID
                                    DCH-ID,
   ul-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL
    dl-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL,
```

```
allocationRetentionPriority
                                    AllocationRetentionPriority
                                                                     OPTIONAL.
    frameHandlingPriority
                                    FrameHandlingPriority
                                                                OPTIONAL,
    dRACControl
                                    DRACControl
                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {FDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    . . .
FDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional } |
    { ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE optional },
FDD-DL-ChannelisationCodeNumber
                                    ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--
FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF FDD-DL-CodeInformationItem
FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode
                                                                DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                                                FDD-DL-ChannelisationCodeNumber,
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information
                                                                        Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
                                            ProtocolExtensionContainer { {FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
FDD-DL-CodeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-S-CCPCH-Offset
                            ::= INTEGER (0..149)
FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
   step-sizel,
   step-size1-5,
    step-size2,
                                        ::= INTEGER { lowest(0), highest(15) } (0..15)
SchedulingPriorityIndicator
FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
   not-first-RLS
FNReportingIndicator ::= ENUMERATED {
    fN-reporting-required,
    fN-reporting-not-required
```

```
FPACH-Information ::= SEQUENCE {
    timeSlotLCR
                                TimeSlotLCR,
    tDD-ChannelisationCodeLCR TDD-ChannelisationCodeLCR,
   midambleShiftLCR
                                MidambleShiftLCR,
    wT
                                INTEGER (1..4),
    . . .
                                ::= INTEGER { lowest(0), highest(15) } (0..15)
FrameHandlingPriority
FrameOffset
                        ::= INTEGER (0..255)
-- Frames
-- G
                        ::= INTEGER (1..14)
GapLength
-- Unit Slot
GapDuration
                        ::= INTEGER (1..144,...)
-- Unit Frame
GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEQUENCE {
        cell-GAIgeographicalCoordinate
                                            GeographicalCoordinate,
       iE-Extensions
                                ProtocolExtensionContainer { {GA-Cell-ExtIEs} } OPTIONAL,
GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-CellAdditionalShapes ::= CHOICE {
   pointWithUncertainty
                                                    GA-PointWithUnCertainty,
   pointWithUncertaintyEllipse
                                                    GA-PointWithUnCertaintyEllipse,
   pointWithAltitude
                                                    GA-PointWithAltitude,
   pointWithAltitudeAndUncertaintyEllipsoid
                                                    GA-PointWithAltitudeAndUncertaintyEllipsoid,
                                                    GA-EllipsoidArc,
    ellipsoidArc
    . . .
GA-AltitudeAndDirection ::= SEQUENCE {
    directionOfAltitude
                            ENUMERATED {height, depth},
    altitude
                            INTEGER (0..32767),
    iE-Extensions
                            ProtocolExtensionContainer { { GA-AltitudeAndDirection-ExtIEs} } OPTIONAL,
    . . .
GA-AltitudeAndDirection-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
GA-EllipsoidArc ::= SEOUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    innerRadius
                                INTEGER (0..65535),
    uncertaintyRadius
                                INTEGER (0..127),
    offsetAngle
                                INTEGER (0..179),
    includedAngle
                                INTEGER (0..179),
    confidence
                                INTEGER (0..127),
                                ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
   iE-Extensions
GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitude ::= SEQUENCE {
                                GeographicalCoordinate,
    geographicalCoordinates
    altitudeAndDirection
                                GA-AltitudeAndDirection,
   iE-Extensions
                                ProtocolExtensionContainer { { GA-PointWithAltitude-ExtIEs} } OPTIONAL,
GA-PointWithAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    altitudeAndDirection
                                GA-AltitudeAndDirection,
   uncertaintyEllipse
                                GA-UncertaintyEllipse,
   uncertaintyAltitude
                                INTEGER (0..127),
    confidence
                                INTEGER (0..127),
                                ProtocolExtensionContainer { { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithUnCertaintyEllipse ::= SEQUENCE {
                                GeographicalCoordinate,
    geographicalCoordinates
   uncertaintyEllipse
                                GA-UncertaintyEllipse,
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
GA-UncertaintyEllipse ::= SEQUENCE {
   uncertaintySemi-major
                               INTEGER (0..127),
   uncertaintySemi-minor
                               INTEGER (0..127),
    orientationOfMajorAxis
                               INTEGER (0..179),
                                                  -- The values 90..179 shall not be used.
                          ProtocolExtensionContainer { { GA-UncertaintyEllipse-ExtIEs} } OPTIONAL, ...
   iE-Extensions
GA-UncertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithUnCertainty ::=SEQUENCE {
    geographicalCoordinates
                               GeographicalCoordinate,
   uncertaintyCode
                     INTEGER (0..127),
                           ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
GA-PointWithUnCertainty-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-AccessPointPosition ::= SEQUENCE {
    geographicalCoordinate
                               GeographicalCoordinate,
   iE-Extensions
                           ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GeographicalCoordinate ::= SEQUENCE {
   latitudeSign
                  ENUMERATED { north, south },
   latitude
                      INTEGER (0..8388607),
                       INTEGER (-8388608..8388607),
   longitude
   iE-Extensions
                           ProtocolExtensionContainer { {GeographicalCoordinate-ExtIEs} } OPTIONAL,
GeographicalCoordinate-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
GERAN-Cell-Capability ::= BIT STRING (SIZE (16))
-- First bit: A/Gb mode --
-- Second bit: Iu mode
-- Note: undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. --
```

```
GERAN-Classmark ::=
                            OCTET STRING
    -- GERAN Classmark as defined in (38) --
GPS-Almanac ::= SEOUENCE {
                            BIT STRING (SIZE (8)),
    wn<sub>a</sub>-alm
    satellite-Almanac-Information
                                        SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            data-id
                                DATA-ID,
            sAT-ID
                                SAT-ID,
                                BIT STRING (SIZE (16)),
            gps-e-alm
            qps-toa-alm
                                BIT STRING (SIZE (8)),
            gps-delta-I-alm
                                BIT STRING (SIZE (16)),
            omegadot-alm
                                BIT STRING (SIZE (16)),
            svhealth-alm
                                BIT STRING (SIZE (8)),
            gps-a-sgrt-alm
                                BIT STRING (SIZE (24)),
            omegazero-alm
                                BIT STRING (SIZE (24)),
            m-zero-alm
                                BIT STRING (SIZE (24)),
            gps-omega-alm
                                BIT STRING (SIZE (24)),
            gps-af-zero-alm
                                BIT STRING (SIZE (11)),
            qps-af-one-alm
                                BIT STRING (SIZE (11)),
            iE-Extensions
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} }
                                                                                                           OPTIONAL,
    sVGlobalHealth-alm
                           BIT STRING (SIZE (364))
                                                        OPTIONAL,
    iE-Extensions
                           ProtocolExtensionContainer { GPS-Almanac-ExtIEs} }
                                                                                         OPTIONAL,
Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPSInformation ::= SEQUENCE (SIZE (1..maxNoGPSTypes)) OF
    SEOUENCE ·
        qPSInformationItem
                                ENUMERATED {
            gPS-NavigationModel-and-TimeRecovery,
            gPS-Ionospheric-Model,
            gPS-UTC-Model,
            gPS-Almanac,
            gPS-RealTime-Integrity,
                                ProtocolExtensionContainer { GPSInformation-ExtIEs} }
       iE-Extensions
                                                                                             OPTIONAL,
-- This IE shall be present if the Information Type IE indicates 'GPS Information'
```

```
GPSInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos
                             BIT STRING (SIZE (8)),
    alpha-one-ionos
                             BIT STRING (SIZE (8)),
                         BIT STRING (SIZE (8)),
    alpha-two-ionos
    alpha-three-ionos
                             BIT STRING (SIZE (8)),
   beta-zero-ionos BIT STRING (SIZE (8)),
beta-one-ionos BIT STRING (SIZE (8)),
beta-two-ionos BIT STRING (SIZE (8)),
beta-three-ionos BIT STRING (SIZE (8)),
protocolextensionConta:
                             ProtocolExtensionContainer { GPS-Ionospheric-Model-ExtIEs} }
                                                                                                        OPTIONAL,
GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF
    SEQUENCE {
                                           INTEGER (0..1048575),
        tx-tow-nav
        sAT-ID
                                           SAT-ID,
        tlm-message-nav
                                           BIT STRING (SIZE (14)),
        tlm-revd-c-nav
                                           BIT STRING (SIZE (2)),
        ho-word-nav
                                           BIT STRING (SIZE (22)),
        w-n-nav
                                           BIT STRING (SIZE (10)),
        ca-or-p-on-12-nav
                                           BIT STRING (SIZE (2)),
        user-range-accuracy-index-nav
                                          BIT STRING (SIZE (4)),
        sv-health-nav
                                           BIT STRING (SIZE (6)),
        iodc-nav
                                           BIT STRING (SIZE (10)),
        12-p-dataflag-nav
                                           BIT STRING (SIZE (1)),
        sfl-reserved-nav
                                           BIT STRING (SIZE (87)),
        t-qd-nav
                                           BIT STRING (SIZE (8)),
        t-oc-nav
                                           BIT STRING (SIZE (16)),
        a-f-2-nav
                                           BIT STRING (SIZE (8)),
        a-f-1-nav
                                           BIT STRING (SIZE (16)),
        a-f-zero-nav
                                           BIT STRING (SIZE (22)),
        c-rs-nav
                                           BIT STRING (SIZE (16)),
                                           BIT STRING (SIZE (16)),
        delta-n-nav
        m-zero-nav
                                           BIT STRING (SIZE (32)),
                                           BIT STRING (SIZE (16)),
        c-uc-nav
        gps-e-nav
                                           BIT STRING (SIZE (32)),
                                           BIT STRING (SIZE (16)),
        c-us-nav
        a-sqrt-nav
                                           BIT STRING (SIZE (32)),
        t-oe-nav
                                           BIT STRING (SIZE (16)),
        fit-interval-flag-nav
                                           BIT STRING (SIZE (1)),
        aodo-nav
                                           BIT STRING (SIZE (5)),
```

```
c-ic-nav
                                       BIT STRING (SIZE (16)),
       omega-zero-nav
                                       BIT STRING (SIZE (32)),
       c-is-nav
                                       BIT STRING (SIZE (16)),
       i-zero-nav
                                       BIT STRING (SIZE (32)),
       c-rc-nav
                                       BIT STRING (SIZE (16)),
                                       BIT STRING (SIZE (32)),
       gps-omega-nav
       omegadot-nav
                                       BIT STRING (SIZE (24)),
       idot-nav
                                       BIT STRING (SIZE (14)),
       spare-zero-fill
                                       BIT STRING (SIZE (20)),
                                       ProtocolExtensionContainer { { GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs} }
       iE-Extensions
GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-RealTime-Integrity ::= CHOICE {
   badSatellites
                               BadSatellites,
   noBadSatellite
                               NULL
GPS-RX-POS ::= SEQUENCE {
    geographicalCoordinate
                               GeographicalCoordinate,
   altitudeAndDirection
                               GA-AltitudeAndDirection,
   iE-Extensions
                               ProtocolExtensionContainer { GPS-RX-POS-ExtIEs} } OPTIONAL,
GPS-RX-POS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Status-Health ::= ENUMERATED {
  udre-1-0,
  udre-0-75,
  udre-0-5,
  udre-0-3,
  udre-0-1,
  no-data,
  invalid-data
GPSTOW ::= INTEGER (0..604799)
GPS-UTC-Model ::= SEQUENCE {
   a-one-utc
                           BIT STRING (SIZE (24)),
                           BIT STRING (SIZE (32)),
   a-zero-utc
   t-ot-utc
                         BIT STRING (SIZE (8)),
   delta-t-ls-utc
                        BIT STRING (SIZE (8)),
    w-n-t-utc
                           BIT STRING (SIZE (8)),
```

```
w-n-lsf-utc
                           BIT STRING (SIZE (8)),
    dn-utc
                           BIT STRING (SIZE (8)),
    delta-t-lsf-utc
                           BIT STRING (SIZE (8)),
   iE-Extensions
                           ProtocolExtensionContainer { GPS-UTC-Model-ExtIEs} }
                                                                                        OPTIONAL,
    . . .
GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate-Information ::= SEQUENCE {
   guaranteed-UL-Rate
                               Guaranteed-Rate OPTIONAL,
    guaranteed-DL-Rate
                               Guaranteed-Rate OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
Guaranteed-Rate-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate
                      ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
-- H
HARO-MemoryPartitioning ::= CHOICE {
    implicit
                   HARQ-MemoryPartitioning-Implicit,
                    HARQ-MemoryPartitioning-Explicit,
    explicit
HARQ-MemoryPartitioning-Implicit ::= SEQUENCE {
   number-of-Processes
                          INTEGER (1..8,...),
                               ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Implicit-ExtIEs } }
    iE-Extensions
                                                                                                                OPTIONAL,
HARO-MemoryPartitioning-Implicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARQ-MemoryPartitioning-Explicit
                                   ::= SEQUENCE {
                                       HARO-MemoryPartitioningList,
   hARO-MemoryPartitioningList
                                        ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }
   iE-Extensions
                                                                                                                         OPTIONAL,
    . . .
HARQ-MemoryPartitioning-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
HARO-MemoryPartitioningList ::= SEOUENCE (SIZE (1...maxNrOfHAROProc)) OF HARO-MemoryPartitioningItem
HARO-MemoryPartitioningItem ::= SEOUENCE {
    process-Memory-Size
                                        ENUMERATED {
                                        hms800, hms1600, hms2400, hms3200, hms4000,
                                        hms4800, hms5600, hms6400, hms7200, hms8000,
                                        hms8800, hms9600, hms10400, hms11200, hms12000,
                                        hms12800, hms13600, hms14400, hms15200, hms16000,
                                        hms17600, hms19200, hms20800, hms22400, hms24000,
                                        hms25600, hms27200, hms28800, hms30400, hms32000,
                                        hms36000, hms40000, hms44000, hms48000, hms52000,
                                        hms56000, hms60000, hms64000, hms68000, hms72000,
                                        hms76000, hms80000, hms88000, hms96000, hms104000,
                                        hms112000, hms120000, hms128000, hms136000, hms144000,
                                        hms152000, hms160000, hms176000, hms192000, hms208000,
                                        hms224000, hms240000, hms256000, hms272000, hms288000,
                                        hms304000,...},
                                        ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }
    iE-Extensions
                                                                                                                     OPTIONAL,
HARO-MemoryPartitioningItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HCS-Prio
          ::= INTEGER (0..7)
-- 0 = lowest priority, ...7 = highest priority
HSDSCH-FDD-Information ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                            HSDSCH-MACdFlow-Specific-InfoList,
   priorityQueue-Info
                                            PriorityQueue-InfoList,
    uE-Capabilities-Info
                                            UE-Capabilities-Info,
                                            CQI-Feedback-Cycle,
    cqiFeedback-CycleK
    cgiRepetitionFactor
                                            COI-RepetitionFactor
                                                                             OPTIONAL,
    -- This IE shall be present if the CQI Feedback Cycle k IE is set to a value greater than 0.
    cqiPowerOffset
                                            COI-Power-Offset,
    ackNackRepetitionFactor
                                            AckNack-RepetitionFactor,
    ackPowerOffset
                                            Ack-Power-Offset,
    nackPowerOffset
                                            Nack-Power-Offset,
   hsscch-PowerOffset
                                            HSSCCH-PowerOffset
                                                                             OPTIONAL,
    iE-Extensions
                                            ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } }
                                                                                                                     OPTIONAL,
    . . .
HSDSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-FDD-Information-Response ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-InfoList-Response
                                                    HSDSCH-MACdFlow-Specific-InfoList-Response,
```

```
hSSCCH-Specific-InfoList-Response
                                                     HSSCCH-FDD-Specific-InfoList-Response,
   measurement-Power-Offset
                                                     Measurement-Power-Offset
                                                                                     OPTIONAL,
   hARO-MemoryPartitioning
                                                     HARO-MemoryPartitioning,
   iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }
                                                                                                                                       OPTIONAL,
    . . .
HSDSCH-FDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Information-to-Modify ::= SEQUENCE
   hSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                     HSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                                                                            OPTIONAL,
   priorityQueue-Info-to-Modify
                                                     PriorityQueue-InfoList-to-Modify
                                                                                             OPTIONAL,
   mAChs-Reordering-Buffer-Size
                                                     MAChsReorderingBufferSize
                                                                                             OPTIONAL,
                                                                                     OPTIONAL,
    cgiFeedback-CycleK
                                                     CQI-Feedback-Cycle
                                                                                                 -- For FDD only
    cqiRepetitionFactor
                                                     CQI-RepetitionFactor
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    cqiPowerOffset
                                                     COI-Power-Offset
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    ackPowerOffset
                                                     Ack-Power-Offset
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
   nackPowerOffset
                                                     Nack-Power-Offset
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
   hsscch-PowerOffset
                                                     HSSCCH-PowerOffset
                                                                                                 -- Only for FDD
                                                                                     OPTIONAL,
   hSSCCH-CodeChangeGrant
                                                     HSSCCH-Code-Change-Grant
                                                                                     OPTIONAL,
    tDDAckNackPowerOffset
                                                     TDD-AckNack-Power-Offset
                                                                                     OPTIONAL,
                                                                                                 -- For TDD only
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs } } 
                                                                                                                                    OPTIONAL,
HSDSCH-Information-to-Modify-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)
HSDSCH-MACdFlow-Specific-InfoList ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem
HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
   allocationRetentionPriority
                                        AllocationRetentionPriority,
   trafficClass
                                        TrafficClass,
   bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }
    iE-Extensions
                                                                                                                           OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response
HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEOUENCE {
   hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
   bindingID
                                        BindingID
                                                                                 OPTIONAL,
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
   hSDSCH-Initial-Capacity-Allocation HSDSCH-Initial-Capacity-Allocation
                                                                                 OPTIONAL,
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                    OPTIONAL,
    iE-Extensions
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                                 OPTIONAL
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    trafficClass
                                        TrafficClass
                                                                                 OPTIONAL,
    bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }
                                                                                                                                       OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Initial-Capacity-Allocation: = SEQUENCE (SIZE (1...16maxNrOfPriorityClasses)) OF HSDSCH-Initial-Capacity-AllocationItem
HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator
                                    SchedulingPriorityIndicator,
    maximum-MACdPDU-Size
                                    MACdPDU-Size,
   hSDSCH-InitialWindowSize
                                    HSDSCH-InitialWindowSize,
    iE-Extensions
                                    ProtocolExtensionContainer { {HSDSCH-Initial-Capacity-AllocationItem-ExtIEs} } OPTIONAL,
    . . .
HSDSCH-Initial-Capacity-AllocationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-InitialWindowSize
                                    ::= INTEGER (1..2047)
-- Number of MAC-d PDUs.
-- 2047 = Unlimited number of MAC-d PDUs
HSDSCH-RNTI ::= INTEGER (0..65535)
```

```
HSDSCH-TDD-Information ::= SEOUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                            HSDSCH-MACdFlow-Specific-InfoList,
   priorityQueue-Info
                                            PriorityQueue-InfoList,
   uE-Capabilities-Info
                                            UE-Capabilities-Info,
    tDD-AckNack-Power-Offset
                                            TDD-AckNack-Power-Offset,
   iE-Extensions
                                            ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } }
                                                                                                                    OPTIONAL,
HSDSCH-TDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Information-Response ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-InfoList-Response
                                                    HSDSCH-MACdFlow-Specific-InfoList-Response,
   hSSCCH-TDD-Specific-InfoList-Response
                                                    HSSCCH-TDD-Specific-InfoList-Response
                                                                                                      OPTIONAL,
-- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
   hSSCCH-TDD-Specific-InfoList-Response-LCR
                                                    HSSCCH-TDD-Specific-InfoList-Response-LCR
                                                                                                      OPTIONAL,
-- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   hSPDSCH-TDD-Specific-InfoList-Response
                                                    HSPDSCH-TDD-Specific-InfoList-Response
                                                                                                      OPTIONAL,
   hSPDSCH-TDD-Specific-InfoList-Response-LCR
                                                    HSPDSCH-TDD-Specific-InfoList-Response-LCR
                                                                                                      OPTIONAL,
   hARQ-MemoryPartitioning
                                                    HARQ-MemoryPartitioning,
                                                    ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }
   iE-Extensions
                                                                                                                                      OPTIONAL,
HSDSCH-TDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response
HSPDSCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
   timeslot
                                                    TimeSlot,
   midambleShiftAndBurstType
                                                    MidambleShiftAndBurstType,
   iE-Extensions
                                                    ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                            OPTIONAL,
HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-TDD-Specific-InfoList-Response-LCR ::= SEOUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF HSPDSCH-TDD-Specific-InfoItem-Response-LCR
HSPDSCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE
    timeslotLCR
                                                TimeSlotLCR,
   midambleShiftLCR
                                                MidambleShiftLCR,
   iE-Extensions
                                                ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
                                                                                                                                            OPTIONAL,
```

```
HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-FDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-FDD-Specific-InfoItem-Response
HSSCCH-FDD-Specific-Infoltem-Response ::= SEOUENCE {
    code-Number
                                                    INTEGER (0..127),
    iE-Extensions
                                                    ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                             OPTIONAL,
    . . .
HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response
HSSCCH-TDD-Specific-InfoItem-Response ::= SEQUENCE
    timeslot
                                                    TimeSlot,
                                                    MidambleShiftAndBurstType,
   midambleShiftAndBurstType
                                                    TDD-ChannelisationCode,
    tDD-ChannelisationCode
   hSSICH-Info
                                                    HSSICH-Info,
                                                    ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    iE-Extensions
                                                                                                                                             OPTIONAL,
HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response-LCR
HSSCCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR
                                                TimeSlotLCR,
   midambleShiftLCR
                                                MidambleShiftLCR,
    first-TDD-ChannelisationCode
                                                TDD-ChannelisationCode,
    second-TDD-ChannelisationCode
                                            TDD-ChannelisationCode,
   hSSICH-InfoLCR
                                                HSSICH-InfoLCR,
                                                ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    iE-Extensions
                                                                                                                                             OPTIONAL,
    . . .
HSSCCH-TDD-Specific-Infoltem-Response-LCR-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
HSSICH-Info ::= SEOUENCE {
   hsSICH-ID
                                                    HS-SICH-ID,
   timeslot
                                                    TimeSlot,
   midambleShiftAndBurstType
                                                    MidambleShiftAndBurstType,
   tDD-ChannelisationCode
                                                    TDD-ChannelisationCode,
   iE-Extensions
                                                    ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }
                                                                                                                 OPTIONAL,
HSSICH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSICH-InfoLCR ::= SEQUENCE {
   hsSICH-ID
                                                    HS-SICH-ID,
   timeslotLCR
                                                    TimeSlotLCR,
   midambleShiftLCR
                                                    MidambleShiftLCR,
   tDD-ChannelisationCode
                                                TDD-ChannelisationCode,
   iE-Extensions
                                                    ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }
                                                                                                                    OPTIONAL,
HSSICH-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HS-SICH-Reception-Quality-Value ::= SEQUENCE
    failed-HS-SICH
                            HS-SICH-failed,
   missed-HS-SICH
                                HS-SICH-missed,
   total-HS-SICH
                                HS-SICH-total,
    iE-Extensions
                                ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
HS-SICH-Reception-Quality-Value-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HS-SICH-failed ::= INTEGER (0..20)
HS-SICH-missed ::= INTEGER (0..20)
HS-SICH-total ::= INTEGER (0..20)
HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]
HS-SICH-ID ::= INTEGER (0..31)
```

```
HSSCCH-CodeChangeIndicator ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
HSSCCH-Code-Change-Grant
                            ::= ENUMERATED {
    changeGranted
HSDSCH-FDD-Update-Information ::= SEQUENCE {
   hsSCCHCodeChangeIndicator
                                                     HSSCCH-CodeChangeIndicator
                                                                                                 OPTIONAL,
    cgiFeedback-CycleK
                                                     CQI-Feedback-Cycle
                                                                                                 OPTIONAL,
    cgiRepetitionFactor
                                                     CQI-RepetitionFactor
                                                                                                 OPTIONAL,
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                                 OPTIONAL,
    cgiPowerOffset
                                                     COI-Power-Offset
                                                                                                 OPTIONAL,
    ackPowerOffset
                                                     Ack-Power-Offset
                                                                                                 OPTIONAL,
   nackPowerOffset
                                                    Nack-Power-Offset
                                                                                                 OPTIONAL,
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }
    iE-Extensions
                                                                                                                                 OPTIONAL,
HSDSCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Update-Information ::= SEQUENCE {
   hsSCCHCodeChangeIndicator
                                                     HSSCCH-CodeChangeIndicator
                                                                                                  OPTIONAL,
    tDDAckNackPowerOffset
                                                     TDD-AckNack-Power-Offset
                                                                                                 OPTIONAL,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }
                                                                                                                                 OPTIONAL,
HSDSCH-TDD-Update-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
-- I
IB-SchedulingInformation::= SEQUENCE {
                                    IB-SG-REP,
    iB-SG-Rep
    iB-segmentInformationList
                                    IB-SegmentInformationList,
                                    ProtocolExtensionContainer { { IB-SchedulingInformation-ExtIEs } } OPTIONAL,
    iE-Extensions
        . . .
IB-SchedulingInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SegmentInformationList ::= SEQUENCE (SIZE(1..maxIBSEG)) OF IB-SegmentInformationItem
IB-SegmentInformationItem ::= SEQUENCE {
```

```
iB-SG-POS
                                    IB-SG-POS,
   iE-Extensions
                                   ProtocolExtensionContainer { {    IB-SegmentInformationItem-ExtIEs } } OPTIONAL,
    . . .
IB-SegmentInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
IMSI
           ::= OCTET STRING (SIZE(3..8))
InformationAvailable::= SEQUENCE {
   requestedDataValue
                           RequestedDataValue,
                           ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }
   iE-Extensions
                                                                                               OPTIONAL,
InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeID ::= INTEGER (0..1048575)
InformationNotAvailable ::= NULL
InformationReportCharacteristics ::= CHOICE {
   onDemand
                           NULL,
   periodic
                           PeriodicInformation,
                           OnModificationInformation,
   onModification
InformationReportPeriodicity ::= CHOICE {
                   INTEGER (1..60,...),
-- Unit min, Step 1min
   hour
                   INTEGER (1..24,...),
-- Unit hour, Step 1hour
InformationThreshold ::= CHOICE {
   dGPSThreshold
                       DGPSThreshold,
```

```
InformationType ::= SEQUENCE {
    informationTypeItem
                            ENUMERATED {
        gA-AccessPointPositionwithAltitude,
        gA-AccessPointPosition,
        iPDLParameters,
        gPSInformation,
        dGPSCorrections,
        gPS-RX-POS,
        sFNSFN-GA-AccessPointPosition,
        cell-Capacity-Class
    gPSInformation
                                GPSInformation
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { InformationType-ExtIEs} }
                                                                                                 OPTIONAL,
-- The GPS Information IE shall be present if the Information Exchange Type IE indicates 'GPS Information'
-- For information exchange on the Iur-g interface, only the Cell Capacity Class is used.
InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                       ::= ENUMERATED {active, inactive}
InnerLoopDLPCStatus
IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters
                                IPDL-FDD-Parameters,
                                                        --3.84Mcps TDD only
    iPDL-TDD-Parameters
                                IPDL-TDD-Parameters,
    extension-IPDLParameters
                                Extension-IPDLParameters
Extension-IPDLParameters
                          ::= ProtocolIE-Single-Container {{ Extension-IPDLParametersIE }}
Extension-IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR CRITICALITY reject TYPE IPDL-TDD-ParametersLCR PRESENCE mandatory },
    . . .
IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD
                                IPSpacingFDD,
    iPLength
                                IPLength,
   iPOffset
                                IPOffset,
                                Seed,
    seed
    burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
   iE-Extensions
                                ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }
                                                                                                   OPTIONAL,
IPDL-FDD-Parameters-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
IPDL-TDD-Parameters ::= SEQUENCE {
   iPSpacingTDD
                                IPSpacingTDD,
   iPStart
                                IPStart,
   iPSlot
                                IPSlot,
   iP-P-CCPCH
                               IP-P-CCPCH,
   burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }
   iE-Extensions
                                                                                                  OPTIONAL,
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-ParametersLCR ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
   iPStart
                                IPStart,
   i PSub
                                IPSub,
   burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} } OPTIONAL,
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPLength ::= ENUMERATED {
   ipl5,
   ipl10,
    . . .
IPOffset ::= INTEGER (0..9)
IP-P-CCPCH ::= ENUMERATED {
    switchOff-1-Frame,
    switchOff-2-Frames
IPSlot ::= INTEGER (0..14)
IPSpacingFDD ::= ENUMERATED {
   ipsF5,
```

```
ipsF7,
    ipsF10,
    ipsF15,
    ipsF20,
   ipsF30,
   ipsF40,
   ipsF50,
    . . .
IPSpacingTDD ::= ENUMERATED {
   ipsT30,
   ipsT40,
   ipsT50,
   ipsT70,
   ipsT100,
    . . .
IPStart ::= INTEGER (0..4095)
IPSub ::= ENUMERATED {
   first,
   second,
   both
-- L
LAC
                    ::= OCTET STRING (SIZE (2)) --(EXCEPT ('0000'H|'FFFE'H))
LengthOfTFCI2 ::= INTEGER(1..10)
LimitedPowerIncrease ::= ENUMERATED {
   used,
   not-used
L3-Information
                           ::= BIT STRING
Load-Value-IncrDecrThres ::= INTEGER(0..100)
Load-Value ::= INTEGER(0..100)
LoadValue ::= SEQUENCE {
       uplinkLoadValue
                            INTEGER(0..100),
       downlinkLoadValue INTEGER(0..100)
```

-- M

```
MaxNrOfUL-DPCHs
                           ::= INTEGER (1..6)
MAC-c-sh-SDU-Length
                           ::= INTEGER (1..5000)
MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length
MACdPDU-Size ::= INTEGER (1..5000,...)
MACdPDU-Size-IndexList ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem
MACdPDU-Size-IndexItem ::= SEQUENCE {
   sID
                                        SID,
   mACdPDU-Size
                                       MACdPDU-Size,
   iE-Extensions
                                       ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs } }
                                                                                                                OPTIONAL,
MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MACdPDU-Size-IndexList-to-Modify ::= SEOUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify
MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    mACdPDU-Size
                                        MACdPDU-Size
                                                                                OPTIONAL,
   iE-Extensions
                                        ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs } }
                                                                                                                         OPTIONAL,
MACdPDU-Size-IndexItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...)
MAChsReorderingBufferSize ::= INTEGER (1..300,...)
-- Unit kBytes
MAC-hsWindowSize
                       ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}
                           ::= INTEGER (-50..33)
MaximumAllowedULTxPower
MaxNrDLPhysicalchannels
                          ::= INTEGER (1..224)
-- 1.28Mcps TDD 97 - 224 are unused
MaxNrDLPhysicalchannelsTS ::= INTEGER (1..16)
MaxNrTimeslots
                           ::= INTEGER (1..14)
```

```
-- 1.28Mcps values 7-14 are unused
MaxNrULPhysicalchannels
                           ::= INTEGER (1..2)
MaxTFCIvalue
                           ::= INTEGER (1..1023)
MeasurementFilterCoefficient ::= ENUMERATED (k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...)
-- Measurement Filter Coefficient to be used for measurement
                           ::= INTEGER (0..1048575)
MeasurementID
Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5
MinimumSpreadingFactor
                           ::= INTEGER (1..16)
Multi-code-info
                           ::= INTEGER (1..16)
MultipleURAsIndicator ::= ENUMERATED {
    multiple-URAs-exist,
   single-URA-exists
MaxAdjustmentStep
                           ::= INTEGER(1..10)
-- Unit Slot
MeasurementChangeTime
                           ::= INTEGER (1..6000,...)
-- The MeasurementChangeTime gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms
Measurement-Feedback-Offset ::= INTEGER (0..79,...)
MeasurementHysteresisTime
                                ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms
                                            ::= CHOICE {
MeasurementIncreaseDecreaseThreshold
    sir
                                    SIR-Value-IncrDecrThres,
                                    SIR-Error-Value-IncrDecrThres,
    sir-error
    transmitted-code-power
                                    Transmitted-Code-Power-Value-IncrDecrThres,
    rscp
                                    RSCP-Value-IncrDecrThres,
    round-trip-time
                                    Round-Trip-Time-IncrDecrThres,
    extension-MeasurementIncreaseDecreaseThreshold
                                                        Extension-MeasurementIncreaseDecreaseThreshold
Extension-MeasurementIncreaseDecreaseThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}
```

```
Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
     ID id-Load-Value-IncrDecrThres
                                    CRITICALITY reject TYPE Load-Value-IncrDecrThres PRESENCE mandatory }
    PRESENCE mandatory
} |
    PRESENCE
mandatory } |
     ID id-UL-Timeslot-ISCP-Value-IncrDecrThres
                                               CRITICALITY reject TYPE UL-Timeslot-ISCP-Value-IncrDecrThres PRESENCE mandatory } |
     ID id-RT-Load-Value-IncrDecrThres CRITICALITY reject TYPE RT-Load-Value-IncrDecrThres
                                                                                       PRESENCE mandatory } |
     ID id-NRT-Load-Information-Value-IncrDecrThres
                                                 CRITICALITY reject TYPE NRT-Load-Information-Value-IncrDecrThresPRESENCE mandatory
MeasurementThreshold
                             ::= CHOICE {
   sir
                                 SIR-Value,
                                SIR-Error-Value,
   sir-error
   transmitted-code-power
                                Transmitted-Code-Power-Value,
                                RSCP-Value,
   rx-timing-deviation
                                Rx-Timing-Deviation-Value,
   round-trip-time
                                Round-Trip-Time-Value,
   extension-MeasurementThreshold Extension-MeasurementThreshold
Extension-MeasurementThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementThresholdIE }}
Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::= {
     ID id-TUTRANGPSMeasurementThresholdInformation
                                                   CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation
                                                                                                                 PRESENCE mandatory
     ID id-SFNSFNMeasurementThresholdInformation
                                                   CRITICALITY reject TYPE SFNSFNMeasurementThresholdInformation
                                                                                                                 PRESENCE mandatory
     ID id-Load-Value
                                                                                                                 PRESENCE mandatory }
                                                   CRITICALITY reject TYPE Load-Value
     ID id-Transmitted-Carrier-Power-Value
                                                   CRITICALITY reject TYPE Transmitted-Carrier-Power-Value
                                                                                                                 PRESENCE mandatory
     ID id-Received-Total-Wideband-Power-Value
                                                   CRITICALITY reject TYPE Received-Total-Wideband-Power-Value
                                                                                                                 PRESENCE mandatory
     ID id-UL-Timeslot-ISCP-Value
                                                   CRITICALITY reject TYPE UL-Timeslot-ISCP-Value
                                                                                                                 PRESENCE mandatory
     ID id-RT-Load-Value
                                                   CRITICALITY reject TYPE RT-Load-Value
                                                                                                                 PRESENCE mandatory
     ID id-NRT-Load-Information-Value
                                                   CRITICALITY reject TYPE NRT-Load-Information-Value
                                                                                                                 PRESENCE mandatory }
     ID id-Rx-Timing-Deviation-Value-LCR
                                                   CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR
                                                                                                                 PRESENCE mandatory |
     ID id-HS-SICH-Reception-Ouality-Measurement-Value CRITICALITY reject TYPE HS-SICH-Reception-Ouality-Measurement-Value PRESENCE mandatory
                                        ENUMERATED {v4, v8, v16}
MidambleConfigurationBurstType1And3 ::=
MidambleConfigurationBurstType2 ::=
                                    ENUMERATED {v3, v6}
                             ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}
MidambleConfigurationLCR ::=
MidambleShiftAndBurstType ::=
                                 CHOICE {
   type1
                                    SEQUENCE
       midambleConfigurationBurstType1And3
                                           MidambleConfigurationBurstType1And3,
       midambleAllocationMode
                                        CHOICE {
          defaultMidamble
                                           NULL,
          commonMidamble
                                           NULL,
          ueSpecificMidamble
                                           MidambleShiftLong,
```

```
. . .
    type2
                                        SEQUENCE {
        midambleConfigurationBurstType2
                                            MidambleConfigurationBurstType2,
       midambleAllocationMode
                                            CHOICE {
            defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
                                                MidambleShiftShort,
            ueSpecificMidamble
        . . .
                                        SEQUENCE {
    type3
       midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
       midambleAllocationMode
                                        CHOICE {
            defaultMidamble
                                                NULL,
            ueSpecificMidamble
                                                MidambleShiftLong,
MidambleShiftLong ::=
                                    INTEGER (0..15)
MidambleShiftShort ::=
                                    INTEGER (0..5)
MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode
                                MidambleAllocationMode,
   midambleShift
                                MidambleShiftLong
                                                         OPTIONAL,
        -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR
                                MidambleConfigurationLCR,
    iE-Extensions
                                ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }
                                                                                                 OPTIONAL,
MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
   uESpecificMidamble,
MidambleShiftLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MinUL-ChannelisationCodeLength
                                    ::= ENUMERATED {
```

```
v4,
   v8,
   v16,
   v32,
   v64,
   v128,
    v256
ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue
                              PriorityQueue-InfoItem-to-Add,
   modifyPriorityQueue
                              PriorityQueue-InfoItem-to-Modify,
   deletePriorityQueue
                              PriorityQueue-Id,
    . . .
Modulation ::= ENUMERATED {
   qPSK,
   eightPSK,
MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
MAChs-ResetIndicator ::= ENUMERATED{
    mAChs-NotReset
Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
NCC ::= BIT STRING (SIZE (3))
Neighbouring-UMTS-CellInformation ::= SEQUENCE (SIZE (1..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-UMTS-
CellInformationItemIE }}
Neighbouring-UMTS-CellInformationItemIE RNSAP-PROTOCOL-IES ::= {
    Neighbouring-UMTS-CellInformationItem PRESENCE mandatory }
Neighbouring-UMTS-CellInformationItem ::= SEQUENCE {
   rNC-ID
                                         RNC-ID,
   cN-PS-DomainIdentifier
                                         CN-PS-DomainIdentifier
                                                                    OPTIONAL,
   cN-CS-DomainIdentifier
                                         CN-CS-DomainIdentifier
                                                                    OPTIONAL,
   neighbouring-FDD-CellInformation
                                         Neighbouring-FDD-CellInformation
                                                                            OPTIONAL,
   neighbouring-TDD-CellInformation
                                         Neighbouring-TDD-CellInformation
                                                                            OPTIONAL,
```

```
iE-Extensions
                                            ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation
                                                             CRITICALITY ignore
                                                                                     EXTENSION
                                                                                                 Neighbouring-LCR-TDD-CellInformation
                                                                                                                                             PRESENCE
optional },
    . . .
Neighbouring-FDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem
Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
    c-ID
                                        C-ID,
    uARFCNforNu
                                        UARFCN,
    11ARFCNforNd
                                        UARFCN,
    frameOffset
                                        FrameOffset
                                                             OPTIONAL,
    primaryScramblingCode
                                        PrimaryScramblingCode,
                                        PrimaryCPICH-Power
    primaryCPICH-Power
                                                                 OPTIONAL,
    cellIndividualOffset
                                        CellIndividualOffset
                                                                 OPTIONAL,
    txDiversityIndicator
                                        TxDiversityIndicator,
    sTTD-SupportIndicator
                                        STTD-SupportIndicator OPTIONAL,
    closedLoopModel-SupportIndicator
                                        ClosedLoopModel-SupportIndicator
                                                                             OPTIONAL,
    closedLoopMode2-SupportIndicator
                                        ClosedLoopMode2-SupportIndicator
                                                                             OPTIONAL,
                                        ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-RestrictionStateIndicator
                                                     CRITICALITY ignore
                                                                                 EXTENSION RestrictionStateIndicator
                                                                                                                        PRESENCE optional }
      ID id-DPC-Mode-Change-SupportIndicator
                                                CRITICALITY ignore
                                                                         EXTENSION
                                                                                     DPC-Mode-Change-SupportIndicator
                                                                                                                           PRESENCE optional }
      ID id-CoverageIndicator
                                                                         EXTENSION CoverageIndicator
                                                                                                                  PRESENCE optional }
                                            CRITICALITY ignore
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
                                                                                                                  PRESENCE optional }
      ID id-HCS-Prio
                                                                         EXTENSION HCS-Prio
                                                                                                                  PRESENCE optional }
                                            CRITICALITY ignore
      ID id-CellCapabilityContainer-FDD
                                                CRITICALITY ignore
                                                                         EXTENSION
                                                                                     CellCapabilityContainer-FDD
                                                                                                                           PRESENCE optional } |
     ID id-SNA-Information
                                            CRITICALITY ignore
                                                                         EXTENSION SNA-Information
                                                                                                         PRESENCE optional },
NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    11ARFCN
                                        UARFCN,
    primaryScramblingCode
                                        PrimaryScramblingCode,
                                        ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}
Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-GSM-CellInformation
                                               CRITICALITY ignore TYPE
                                                                            Neighbouring-GSM-CellInformationIEs PRESENCE mandatory }
Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem
Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cellIndividualOffset
                                        CellIndividualOffset
                                                                OPTIONAL,
   bSIC
                                        BSIC,
   band-Indicator
                                        Band-Indicator,
   bcch-arfcn
                                        BCCH-ARFCN,
    iE-Extensions
                                        ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
    . . .
Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION CoverageIndicator
                                                                                                                    PRESENCE optional
      ID id-AntennaColocationIndicator
                                                                                                                    PRESENCE optional
                                            CRITICALITY ignore
                                                                        EXTENSION AntennaColocationIndicator
     ID id-HCS-Prio
                                                                        EXTENSION HCS-Prio
                                            CRITICALITY ignore
                                                                                                                    PRESENCE optional
     ID id-SNA-Information
                                            CRITICALITY ignore
                                                                        EXTENSION SNA-Information
                                                                                                                    PRESENCE optional
      ID id-GERAN-Cell-Capability
                                            CRITICALITY ignore
                                                                        EXTENSION GERAN-Cell-Capability
                                                                                                                    PRESENCE optional
      ID id-GERAN-Classmark
                                            CRITICALITY ignore
                                                                        EXTENSION GERAN-Classmark
                                                                                                                    PRESENCE optional
     ID id-ExtendedGSMCellIndividualOffset CRITICALITY ignore
                                                                        EXTENSION ExtendedGSMCellIndividualOffset PRESENCE optional },
Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem
Neighbouring-TDD-CellInformationItem ::= SEQUENCE {
    c-ID
                                    C-ID,
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                        OPTIONAL,
    cellParameterID
                                    CellParameterID,
    syncCase
                                    SyncCase,
    timeSlot
                                    TimeSlot
                                                        OPTIONAL
    -- This IE shall be present if Sync Case = Casel --
                                    SCH-TimeSlot
                                                            OPTIONAL
    sCH-TimeSlot
    -- This IE shall be present if Sync Case = Case2 -- ,
                            SCTD-Indicator,
    sCTD-Indicator
    cellIndividualOffset
                                    CellIndividualOffset
                                                            OPTIONAL,
    dPCHConstantValue
                                    DPCHConstantValue OPTIONAL,
    pCCPCH-Power
                                    PCCPCH-Power
                                                            OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { { Neighbouring-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
Neighbouring-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
ID id-RestrictionStateIndicator
                                                     CRITICALITY ignore
                                                                                 EXTENSION RestrictionStateIndicator PRESENCE optional } |
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION CoverageIndicator
                                                                                                                  PRESENCE optional }
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
                                                                                                                  PRESENCE optional }
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                         EXTENSION HCS-Prio
                                                                                                                  PRESENCE optional } |
                                                                                                                        PRESENCE optional } |
      ID id-CellCapabilityContainer-TDD
                                                     CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
    ID id-SNA-Information
                                                     CRITICALITY ignore EXTENSION SNA-Information
                                                                                                                  PRESENCE optional },
    . . .
NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    11C-TD
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlot
                                        TimeSlot
                                                                     OPTIONAL,
    midambleShiftAndBurstType
                                        MidambleShiftAndBurstType
                                                                    OPTIONAL,
   iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    . . .
NeighbouringTDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlotLCR
                                        TimeSlotLCR
                                                                     OPTIONAL,
    midambleShiftLCR
                                        MidambleShiftLCR
                                                                     OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-LCR-TDD-CellInformation ::= SEQUENCE (SIZE (1.. maxNrOfLCRTDDNeighboursPerRNC,...)) OF Neighbouring-LCR-TDD-CellInformationItem
Neighbouring-LCR-TDD-CellInformationItem ::= SEQUENCE {
    c-ID
                                    C-ID,
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                         OPTIONAL,
    cellParameterID
                                    CellParameterID,
    sCTD-Indicator
                            SCTD-Indicator,
    cellIndividualOffset
                                    CellIndividualOffset
                                                             OPTIONAL,
    dPCHConstantValue
                                    DPCHConstantValue
                                                        OPTIONAL,
    pCCPCH-Power
                                    PCCPCH-Power
                                                             OPTIONAL.
    restrictionStateIndicator
                                    RestrictionStateIndicator
                                                                     OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { { Neighbouring-LCR-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
```

PRESENCE optional } |

PRESENCE optional },

```
Neighbouring-LCR-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD-LCR
    { ID id-SNA-Information
                                           CRITICALITY ignore EXTENSION SNA-Information
    . . .
NrOfDLchannelisationcodes ::= INTEGER (1..8)
NrOfTransportBlocks
                           ::= INTEGER (0..512)
NRT-Load-Information-Value-IncrDecrThres ::= INTEGER(0..3)
NRT-Load-Information-Value ::= INTEGER(0..3)
NRTLoadInformationValue ::= SEQUENCE {
       uplinkNRTLoadInformationValue
                                           INTEGER(0..3),
       downlinkNRTLoadInformationValue
                                           INTEGER(0..3)
-- O
OnModification ::= SEOUENCE {
    measurementThreshold MeasurementThreshold,
                           ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
OnModification-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
OnModificationInformation ::= SEQUENCE {
    informationThreshold InformationThreshold
                                                   OPTIONAL,
                           ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
    iE-Extensions
OnModificationInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
```

```
terminating-background-call,
    terminating-low-priority-signalling,
    terminating-high-priority-signalling,
    terminating-cause-unknown
-- See in [16]
PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
   p-tmsi-gsm-map,
   imsi-ds-41,
    tmsi-ds-41,
-- See in [16]
PartialReportingIndicator ::= ENUMERATED {
    partial-reporting-allowed
PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
    crc-not-included
PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm
PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem
PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                    ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PC-Preamble ::= INTEGER(0..7,...)
PDSCHCodeMapping ::= SEQUENCE {
   dL-ScramblingCode
                            DL-ScramblingCode,
    signallingMethod
                            PDSCHCodeMapping-SignallingMethod,
    iE-Extensions
                            ProtocolExtensionContainer { { PDSCHCodeMapping-ExtIEs} } OPTIONAL,
```

```
PDSCHCodeMapping-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod ::= CHOICE {
   pDSCHCodeMapping-SignallingMethod-CodeRange
                                                    PDSCHCodeMapping-SignallingMethod-CodeRange,
   pDSCHCodeMapping-SignallingMethod-TFCIRange
                                                    PDSCHCodeMapping-SignallingMethod-TFCIRange,
   pDSCHCodeMapping-SignallingMethod-Explicit
                                                    PDSCHCodeMapping-SignallingMethod-Explicit,
    pDSCHCodeMapping-SignallingMethod-Replace
                                                    PDSCHCodeMapping-SignallingMethod-Replace
PDSCHCodeMapping-SignallingMethod-CodeRange ::= SEQUENCE (SIZE (1..maxNoCodeGroups)) OF
    SEQUENCE {
       spreadingFactor
                                SpreadingFactor,
       multi-code-info
                                Multi-code-info,
        start-CodeNumber
                                CodeNumber,
        stop-CodeNumber
                                CodeNumber,
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs} } OPTIONAL,
       iE-Extensions
PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-TFCIRange ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
    SEOUENCE {
       maxTFCIvalue
                                MaxTFCIvalue,
        spreadingFactor
                                SpreadingFactor,
                                Multi-code-info,
       multi-code-info
        codeNumber
                                CodeNumber,
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs} } OPTIONAL,
       iE-Extensions
PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-Explicit ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEQUENCE {
       spreadingFactor
                                SpreadingFactor,
       multi-code-info
                                Multi-code-info,
       codeNumber
                                CodeNumber,
       iE-Extensions
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs} } OPTIONAL,
```

```
PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-Replace ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
   SEQUENCE {
       tfci-Field2
                                    TFCS-MaxTFCI-field2-Value,
       spreadingFactor
                                    SpreadingFactor,
       multi-CodeInfo
                                    Multi-code-info,
                                    CodeNumber,
       codeNumber
                                    ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs} } OPTIONAL,
       iE-Extensions
PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Periodic ::= SEQUENCE {
   reportPeriodicity
                           ReportPeriodicity,
   iE-Extensions
                           ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PeriodicInformation ::= SEQUENCE {
    informationReportPeriodicity
                                        InformationReportPeriodicity,
   iE-Extensions
                                        ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
    . . .
PeriodicInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Permanent-NAS-UE-Identity ::= CHOICE {
    imsi
               IMSI,
Phase-Reference-Update-Indicator ::= ENUMERATED {
    Pphase-reference-needs-to-be-changed
PLMN-Identity ::= OCTET STRING (SIZE(3))
PowerAdjustmentType ::= ENUMERATED {
```

```
none,
    common,
    individual
PowerOffset
                       ::= INTEGER (0..24)
PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters
PRCDeviation ::= ENUMERATED {
   prcd1,
   prcd2,
   prcd5,
   prcd10,
    . . .
Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
   may-trigger-pre-emption
Pre-emptionVulnerability ::= ENUMERATED {
   not-pre-emptable,
   pre-emptable
PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PrimaryCPICH-Power
                    ::= INTEGER (-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm
PrimaryCPICH-EcNo
                         ::= INTEGER (-30..30)
Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
  primary-CPICH-may-be-used,
  primary-CPICH-shall-not-be-used
PrimaryCCPCH-RSCP
                           ::= INTEGER (0..91)
-- According to maping in [14]
PrimaryScramblingCode
                                ::= INTEGER (0..511)
PriorityLevel
                           ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority
```

```
PriorityQueue-Id ::= INTEGER (0..maxNrOfPrioQueues-1)
PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem
PriorityQueue-InfoItem ::= SEQUENCE {
   priorityQueue-Id
                                        PriorityQueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
                                        Т1,
    discardTimer
                                        DiscardTimer
                                                                     OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                     OPTIONAL,
    mACdPDU-Size-Index
                                        MACdPDU-Size-IndexList,
    iE-Extensions
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }
                                                                                                                   OPTIONAL,
PriorityQueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF ModifyPriorityQueue
PriorityOueue-InfoItem-to-Add ::= SEOUENCE {
    priorityOueue-Id
                                        PriorityOueue-Id,
                                        HSDSCH-MACdFlow-ID,
    associatedHSDSCH-MACdFlow
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    t.1
                                        Т1,
    discardTimer
                                        DiscardTimer
                                                                                  OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        {\tt MAChsGuaranteedBitRate}
                                                                                 OPTIONAL,
    mACdPDU-Size-Index-to-Modify
                                        MACdPDU-Size-IndexList-to-Modify
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs } } 
    iE-Extensions
                                                                                                                         OPTIONAL,
    . . .
PriorityQueue-InfoItem-to-Add-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueue-Id
                                        PriorityQueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID
                                                                                  OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                                  OPTIONAL,
                                                                                  OPTIONAL,
    discardTimer
                                        DiscardTimer
                                                                                  OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize
                                                                                  OPTIONAL,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                  OPTIONAL,
    mACdPDU-Size-Index-to-Modify
                                        MACdPDU-Size-IndexList-to-Modify
                                                                                              OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } } }
                                                                                                                            OPTIONAL,
```

```
PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PropagationDelay ::= INTEGER (0..255)
PunctureLimit
                        ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- O
QE-Selector ::= ENUMERATED {
   selected,
   non-selected
Qth-Parameter ::= INTEGER (-20..0)
-- Unit dB, Step 1dB
-- R
RAC
                ::= OCTET STRING (SIZE(1))
RANAP-RelocationInformation ::= BIT STRING
Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s
RateMatchingAttribute
                      ::= INTEGER (1..maxRateMatching)
RB-Identity
                              ::= INTEGER (0..31)
RB-Info ::= SEQUENCE (SIZE(1..maxNoOfRB)) OF RB-Identity
Received-Total-Wideband-Power-Value ::= Received-total-wide-band-power
Received-Total-Wideband-Power-Value-IncrDecrThres ::= INTEGER(0..620)
-- Unit dB Step 0.1dB
-- e.g. value 100 means 10dB
RefTFCNumber ::= INTEGER (0..15)
RepetitionLength
                 ::= INTEGER (1..63)
RepetitionPeriod ::= ENUMERATED {
   v1,
   v2,
   v4,
```

```
v8,
   v16,
   v32,
   v64
RepetitionNumber0 ::= INTEGER (0..255)
RepetitionNumber1 ::= INTEGER (1..256)
ReportCharacteristics ::= CHOICE {
   onDemand
                       NULL,
   periodic
                       Periodic,
   eventA
                       EventA,
                       EventB,
   eventB
   eventC
                       EventC,
    eventD
                       EventD,
                       EventE,
   eventE
    eventF
                       EventF,
    extension-ReportCharacteristics
                                       Extension-ReportCharacteristics
Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}
Extension-ReportCharacteristicsIE RNSAP-PROTOCOL-IES ::= {
                                                                      PRESENCE mandatory }
    { ID id-OnModification CRITICALITY reject TYPE OnModification
ReportPeriodicity ::= CHOICE {
                           INTEGER (1..6000,...),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
    min
                   INTEGER (1..60,...),
-- Unit min, Step 1min
RequestedDataValue ::= SEQUENCE {
   qA-AccessPointPositionwithAltitude
                                               GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
    iPDLParameters
                                               IPDLParameters
                                                                                          OPTIONAL,
   dGPSCorrections
                                               DGPSCorrections
                                                                                          OPTIONAL,
   gPS-NavigationModel-and-TimeRecovery
                                               GPS-NavigationModel-and-TimeRecovery
                                                                                          OPTIONAL,
                                               GPS-Ionospheric-Model
   qPS-Ionospheric-Model
                                                                                          OPTIONAL,
                                               GPS-UTC-Model
   gPS-UTC-Model
                                                                                          OPTIONAL,
   qPS-Almanac
                                               GPS-Almanac
                                                                                          OPTIONAL,
   gPS-RealTime-Integrity
                                               GPS-RealTime-Integrity
                                                                                          OPTIONAL,
                                               GPS-RX-POS
                                                                                          OPTIONAL,
   gPS-RX-POS
   sFNSFN-GA-AccessPointPosition
                                               GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
    iE-Extensions
                                               OPTIONAL,
```

```
RequestedDataValue-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION Cell-Capacity-Class-Value PRESENCE mandatory },
RequestedDataValueInformation ::= CHOICE {
                              InformationAvailable,
   informationAvailable
   informationNotAvailable
                              InformationNotAvailable
RestrictionStateIndicator ::= ENUMERATED {
   cellNotResevedForOperatorUse,
   cellResevedForOperatorUse,
RL-ID
                     ::= INTEGER (0..31)
RL-Set-ID
                     ::= INTEGER (0..31)
RL-Specific-DCH-Info ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item
RL-Specific-DCH-Info-Item ::= SEQUENCE {
   dCH-id
                          DCH-ID,
   bindingID
                          BindingID OPTIONAL,
   -- Shall be ignored if bearer establishment with ALCAP.-
   transportLayerAddress TransportLayerAddress
                                                     OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
   iE-Extensions
                          ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} } OPTIONAL,
    . . .
RL-Specific-DCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RNC-ID
                      ::= INTEGER (0..4095)
Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)
Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [23]
RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [24]
RSCP-Value-IncrDecrThres ::= INTEGER (0..126)
```

```
Received-total-wide-band-power
                                            ::= INTEGER (0..621)
-- According to mapping in [23]
RT-Load-Value-IncrDecrThres ::= INTEGER(0..100)
RT-Load-Value ::= INTEGER(0..100)
RTLoadValue ::= SEQUENCE {
        uplinkRTLoadValue
                                INTEGER(0..100),
       downlinkRTLoadValue
                                INTEGER(0..100)
{\tt RxTimingDeviationForTA}
                                    ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
-- For 1.28Mcps TDD this IE must be set to 0.
Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]
Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
--According to mapping in [24][1.28Mcps TDD only]
-- S
SAC
                    ::= OCTET STRING (SIZE (2))
SAI ::= SEQUENCE {
    pLMN-Identity
                        PLMN-Identity,
   1AC
                        LAC,
    sAC
                        SAC,
                        ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
    iE-Extensions
SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SAT-ID ::= INTEGER (0..63)
SCH-TimeSlot
                            ::= INTEGER (0..6)
ScaledAdjustmentRatio
                                ::= INTEGER(0..100)
-- AdjustmentRatio = ScaledAdjustmentRatio / 100
Secondary-CCPCH-Info::= SEOUENCE {
    fDD-S-CCPCH-Offset
                                            FDD-S-CCPCH-Offset,
    dl-ScramblingCode
                                            DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
    dl-TFCS
    secondaryCCPCH-SlotFormat
                                            SecondaryCCPCH-SlotFormat,
    tFCI-Presence
                                            TFCI-Presence OPTIONAL,
```

```
-- This IE shall be present only if the Secondary CCPCH Slot Format IE is equal to any of the values from 8 to 17
   multiplexingPosition
                                            MultiplexingPosition,
   sTTD-Indicator
                                            STTD-Indicator,
    fACH-PCH-InformationList
                                            FACH-PCH-InformationList,
    iB-schedulingInformation
                                            IB-SchedulingInformation,
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Secondary-CCPCH-Info-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-Info-TDD::= SEOUENCE {
   dl-TFCS
                                            TFCS.
   tFCI-Coding
                                            TFCI-Coding,
   secondary-CCPCH-TDD-InformationList
                                            Secondary-CCPCH-TDD-InformationList,
    fACH-InformationList
                                            FACH-InformationList,
   pCH-InformationList
                                            PCH-InformationList,
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
Secondary-CCPCH-Info-TDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information ::= SEQUENCE {
  dl-ScramblingCode
                                            DL-ScramblingCode,
   fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
  iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
Secondary-CPICH-Information-Extles RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information-Change ::= CHOICE {
new-secondary-CPICH
                                    Secondary-CPICH-Information,
secondary-CPICH-shall-not-be-used
                                    NULL,
Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
   dl-TFCS
                                            TFCS,
   tFCI-Coding
                                            TFCI-Coding,
   secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList
                                            FACH-InformationList,
   pCH-InformationList
                                            PCH-InformationList,
    iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
```

```
Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem
Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
   midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
   tFCI-Presence
                                    TFCI-Presence,
   secondary-CCPCH-TDD-Code-Information
                                                        Secondary-CCPCH-TDD-Code-Information,
   tDD-PhysicalChannelOffset
                                    TDD-PhysicalChannelOffset,
                                    RepetitionLength,
   repetitionLength
   repetitionPeriod
                                    RepetitionPeriod,
                                    ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem
Secondary-LCR-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                                TimeSlotLCR,
   midambleShiftLCR
                                                MidambleShiftLCR,
   tFCI-Presence
                                                TFCI-Presence,
   secondary-LCR-CCPCH-TDD-Code-Information
                                                Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset
                                                TDD-PhysicalChannelOffset,
    repetitionLength
                                                RepetitionLength,
    repetitionPeriod
                                                RepetitionPeriod,
                                                ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem
Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
                                    ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem
Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCodeLCR
                                   TDD-ChannelisationCodeLCR,
    s-CCPCH-TimeSlotFormat-LCR
                                    TDD-DL-DPCH-TimeSlotFormat-LCR,
                                    ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
Seed ::= INTEGER (0..63)
SFN ::= INTEGER (0..4095)
SFNSFN-FDD ::= INTEGER(0..614399)
SFNSFN-TDD ::= INTEGER(0..40961)
GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE
    geographicalCoordinate
                                                GeographicalCoordinate,
   altitudeAndDirection
                                                GA-AltitudeAndDirection OPTIONAL,
                                                ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
   iE-Extensions
GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
```

```
SFNSFNMeasurementThresholdInformation::= SEQUENCE {
   sFNSFNChangeLimit
                                        SFNSFNChangeLimit
                                                                            OPTIONAL,
   predictedSFNSFNDeviationLimit
                                        PredictedSFNSFNDeviationLimit
                                                                            OPTIONAL,
                                    ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }
   iE-Extensions
                                                                                                                       OPTIONAL,
    . . .
SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNMeasurementValueInformation ::= SEQUENCE {
   \verb|successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation| \\
                                                                                        SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
       SEOUENCE {
           uC-ID
                        UC-ID,
           sFNSFNValue
                                        SFNSFNValue,
           sFNSFNQuality
                                        SFNSFNQuality
                                                                        OPTIONAL,
           sFNSFNDriftRate
                                        SFNSFNDriftRate,
           sFNSFNDriftRateQuality
                                        SFNSFNDriftRateQuality
           sFNSFNTimeStampInformation SFNSFNTimeStampInformation-
           iE-Extensions
                                        ProtocolExtensionContainer { {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
                                                                                                 OPTIONAL,
   unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation
                                                                                        SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
       SEQUENCE {
           uC-ID
                        UC-ID,
           iE-Extensions
                                ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }
               OPTIONAL,
                       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }
    iE-Extensions
                                                                                                           OPTIONAL,
SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
SFNSFNQuality ::= INTEGER (0..255)
 -- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
 SFNSFNTimeStampInformation ::= CHOICE {
     sFNSFNTimeStamp-FDD
     sFNSFNTimeStamp-TDD
                              SFNSFNTimeStamp-TDD,
 SFNSFNTimeStamp-TDD::= SEQUENCE {
                         SFN,
     timeSlot
                         TimeSlot,
     iE-Extensions
                                      ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
 SFNSFNTimeStamp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
 SFNSFNValue ::= CHOICE {
     sFNSFN-FDD
                     SFNSFN-FDD,
     sFNSFN-TDD
                     SFNSFN-TDD,
     . . .
 SID ::= INTEGER (0..maxNrOfPDUIndexes-1)
 SIR-Error-Value
                   ::= INTEGER (0..125)
 SIR-Error-Value-IncrDecrThres
                                       ::= INTEGER (0..124)
 SIR-Value
                          ::= INTEGER (0..63)
-- According to mapping in \frac{25.215}{11}[11]/\frac{25.225}{14}
 SIR-Value-IncrDecrThres ::= INTEGER (0..62)
 SecondaryCCPCH-SlotFormat
                               ::= INTEGER (0..17,...)
-- refer to <del>25.211</del>[8]
 S-FieldLength
                             ::= ENUMERATED {
     v1,
     v2,
     . . .
 SNA-Information ::= SEQUENCE {
```

```
pLMN-Identity PLMN-Identity,
   listOfSNAs
                        ListOfSNAs
                                                                          OPTIONAL,
                        ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
SNA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs, ...)) OF SNACode
SNACode ::= INTEGER (0..65535)
SpecialBurstScheduling ::= INTEGER (1..256)
SplitType ::= ENUMERATED {
    hard,
    logical
SpreadingFactor
                        ::= INTEGER (4 | 8 | 16 | 32 | 64 | 128 | 256)
S-RNTI
                        ::= INTEGER (0..1048575)
-- From 0 to 2^20-1
S-RNTI-Group
                         ::= SEQUENCE {
                             S-RNTI,
    sRNTI
    sRNTI-BitMaskIndex
                             ENUMERATED {
        b1,
        b2,
        b3,
        b4,
        b5,
        b6,
        b7,
        b8,
        b9,
        b10,
        b11,
        b12,
        b13,
        b14,
        b15,
        b16,
        b17.
        b18,
        b19<u>,...</u>
```

```
SRB-Delay ::= INTEGER(0..7,...)
SSDT-CellID ::= ENUMERATED {
   a,
   b,
   C,
   d,
   e,
   f,
   g,
   h
SSDT-CellID-Length ::= ENUMERATED {
   short,
   medium,
   long
SSDT-Indication ::= ENUMERATED {
   sSDT-active-in-the-UE,
   sSDT-not-active-in-the-UE
SSDT-SupportIndicator ::= ENUMERATED {
   sSDT-supported,
   sSDT-not-supported
STTD-Indicator ::= ENUMERATED {
   active,
   inactive
STTD-SupportIndicator ::= ENUMERATED {
   sTTD-Supported,
   sTTD-not-Supported
Support-8PSK ::= ENUMERATED {
   v8PSK-Supported
SyncCase ::= INTEGER (1..2,...)
SynchronisationConfiguration ::= SEQUENCE {
   n-INSYNC-IND INTEGER (1..256),
   n-OUTSYNC-IND
                         INTEGER (1..256),
   t-RLFAILURE
                         INTEGER (0..255),
-- Unit seconds, Range Os .. 25.5s, Step 0.1s
                          ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }
   iE-Extensions
                                                                                                  OPTIONAL,
```

```
SynchronisationConfiguration-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
SYNC-UL-ProcParameters ::= SEQUENCE {
                                    ENUMERATED {v1, v2, v4, v8, ...},
    maxSYNC-UL-transmissions
                                    INTEGER (0..3, ...),
   powerRampStep
-- T
T1 ::= ENUMERATED {v10,v20,v30,v40,v50,v60,v70,v80,v90,v100,v120,v140,v160,v200,v300,v400,...}
TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB
TDD-ChannelisationCode
                                ::= ENUMERATED {
    chCodeldiv1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCodel6div5,
    chCodel6div6,
    chCodel6div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
```

```
chCode16div16,
TDD-ChannelisationCodeLCR ::= SEOUENCE {
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
    modulation
                                    Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem
TDD-DCHs-to-ModifyItem ::= SEQUENCE {
   ul-FP-Mode
                                        UL-FP-Mode OPTIONAL,
    toAWS
                                        ToAWS
                                                    OPTIONAL,
    TOAWE
                                        TOAWE
                                                    OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        TDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem
TDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
   ul-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
   dl-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    ul-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional } |
    { ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE optional },
    . . .
TDD-DL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem
TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
```

```
ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-LCR-Information ::= SEOUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem
TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR
                                            TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                           OPTIONAL,
TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                                OPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    . . .
QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0...24,...)
TDD-DPCHOffset ::= CHOICE {
    initialOffset
                        INTEGER (0..255),
                        INTEGER (0..63)
   noinitialOffset
TDD-PhysicalChannelOffset
                                ::= INTEGER (0..63)
TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-sizel,
   step-size2,
    step-size3,
TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-sizel,
   step-size2,
    step-size3,
```

```
TDD-UL-Code-Information ::= SEOUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem
TDD-UL-Code-InformationItem ::= SEOUENCE {
    dPCH-ID
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
   iE-Extensions
                                    ProtocolExtensionContainer { {TDD-UL-Code-InformationItem-ExtIEs} } OPTIONAL,
TDD-UL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationItem
TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR
                                            TDD-UL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                          OPTIONAL
TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                                OPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)
EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TFCI-Coding ::= ENUMERATED {
   v4,
   v8,
   v16,
    v32,
    . . .
TFCI-PC-SupportIndicator ::= ENUMERATED {
    tFCI-PC-model-supported,
    tFCI-PC-mode2-supported
```

```
TFCI-Presence ::= ENUMERATED {
    present,
    not-present
TFCI-SignallingMode ::= ENUMERATED {
    normal,
    split
                     ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence
TGPRC
                     ::= INTEGER (0..511)
-- 0 = infinity
                     ::= INTEGER (1.. maxTGPS)
TGPSID
TGSN
                     ::= INTEGER (0..14)
TimeSlot
                         ::= INTEGER (0..14)
TimeSlotLCR ::= INTEGER (0..6)
TimingAdvanceApplied ::= ENUMERATED {
    yes,
    no
ToAWE
                         ::= INTEGER (0..2559)
ToAWS
                         ::= INTEGER (0..1279)
TrafficClass ::= ENUMERATED {
    conversational,
    streaming,
    interactive,
    background,
    . . .
{\tt Transmission-Gap-Pattern-Sequence-Information} ::= {\tt SEQUENCE} \ ({\tt SIZE} \ ({\tt 1...maxTGPS})) \ {\tt OF}
    SEQUENCE {
        tGPSID
                         TGPSID,
        tGSN
                         TGSN,
        tGL1
                         GapLength,
                         GapLength OPTIONAL,
        tGL2
        tGD
                         TGD,
        tGPL1
                         GapDuration,
        tGPL2
                         GapDuration OPTIONAL,
```

```
uL-DL-mode
                        UL-DL-mode,
        downlink-Compressed-Mode-Method
                                            Downlink-Compressed-Mode-Method
                                                                                OPTIONAL,
           -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
       uplink-Compressed-Mode-Method
                                            Uplink-Compressed-Mode-Method
                                                                                OPTIONAL,
           -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
                            DL-FrameType,
       dL-FrameType
        delta-SIR1
                       DeltaSIR,
       delta-SIR-after1 DeltaSIR,
       delta-SIR2
                       DeltaSIR
                                    OPTIONAL,
       delta-SIR-after2 DeltaSIR
                                        OPTIONAL,
                                ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
Transmission-Gap-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Transmission-Gap-Pattern-Sequence-ScramblingCode-Information
  code-change,
  nocode-change
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
       tGPSID
                        TGPSID,
        tGPRC
                        TGPRC,
        tGCFN
                        CFN,
                            ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
       iE-Extensions
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalDynamic ::= ENUMERATED {
   msec-10,
   msec-20,
   msec-40,
    msec-80,
TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10,
   msec-20,
   msec-40,
    msec-80,
    dynamic,
```

```
TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
Transmitted-Carrier-Power-Value-IncrDecrThres ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
TUTRANGPS ::= SEOUENCE {
    ms-part
               INTEGER (0..16383),
   ls-part
                INTEGER (0..4294967295)
TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s
TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s
TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
   accuracy-class-B,
   accuracy-class-C,
TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit
                                            TUTRANGPSChangeLimit
                                                                                    OPTIONAL,
   predictedTUTRANGPSDeviationLimit
                                            PredictedTUTRANGPSDeviationLimit
                                                                                    OPTIONAL,
   iE-Extensions
                                    ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }
                                                                                                                          OPTIONAL
TUTRANGPSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSMeasurementValueInformation ::= SEOUENCE {
        tUTRANGPS
                                        TUTRANGPS,
        tUTRANGPSQuality
                                        TUTRANGPSQuality
                                                                        OPTIONAL,
       tUTRANGPSDriftRate
                                        TUTRANGPSDriftRate,
        tUTRANGPSDriftRateQuality
                                        TUTRANGPSDriftRateQuality
                                                                        OPTIONAL,
```

OPTIONAL,

```
iEe-Extensions
                                        ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs} }
TUTRANGPSMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
}
TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
TransportBearerID
                       ::= INTEGER (0..4095)
TransportBearerRequestIndicator
                                    ::= ENUMERATED {
   bearer-requested,
   bearer-not-requested,
TransportBlockSize
                            ::= INTEGER (0..5000)
-- Unit is bits
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors
                           SEOUENCE {
       betaC
                                BetaCD,
       betaD
                                BetaCD,
                                                OPTIONAL,
       refTFCNumber
                                RefTFCNumber
       iE-Extensions
                                ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs} } OPTIONAL,
    refTFCNumber
                            RefTFCNumber,
    . . .
SignalledGainFactors-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS ::= SEQUENCE {
    tFCSvalues
                        CHOICE {
                                    TFCS-TFCSList,
        no-Split-in-TFCI
        split-in-TFCI
                                    SEQUENCE {
            transportFormatCombination-DCH
                                                TFCS-DCHList,
            signallingMethod
                                                CHOICE {
                                                TFCS-MapingOnDSCHList,
                tFCI-Range
                explicit
                                                     TFCS-DSCHList,
                . . .
            iE-Extensions
                                                ProtocolExtensionContainer { { Split-in-TFCI-ExtIEs} } OPTIONAL,
        . . .
```

```
ProtocolExtensionContainer { { TFCS-ExtIEs} }
   iE-Extensions
                                                                          OPTIONAL,
Split-in-TFCI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
   SEQUENCE {
       cTFC
                          TFCS-CTFC,
       tFC-Beta TransportFormatCombination-Beta
                                                        OPTIONAL,
       -- The IE shall be present if the TFCS concerns a UL DPCH [FDD - or PRACH channel in FDD]
       iE-Extensions
                       ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs} }
   . . .
TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-CTFC ::= CHOICE {
   ctfc2bit
                                       INTEGER (0..3),
   ctfc4bit
                                       INTEGER (0..15),
   ctfc6bit
                                       INTEGER (0..63),
   ctfc8bit
                                       INTEGER (0..255),
                                       INTEGER (0..4095),
   ctfc12bit
   ctfc16bit
                                       INTEGER (0..65535),
   ctfcmaxbit
                                       INTEGER (0..maxCTFC)
TFCS-DCHList ::= SEQUENCE (SIZE (1..maxTFCI1Combs)) OF
   SEOUENCE {
                           TFCS-CTFC,
       cTFC
                         ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs} }
       iE-Extensions
                                                                                      OPTIONAL,
       . . .
TFCS-DCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MapingOnDSCHList ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
   SEQUENCE {
```

```
maxTFCI-field2-Value
                                  TFCS-MaxTFCI-field2-Value,
       cTFC-DSCH
                              TFCS-CTFC,
                                  ProtocolExtensionContainer { { TFCS-MapingOnDSCHList-ExtIEs} }
       iE-Extensions
                                                                                                   OPTIONAL,
TFCS-MapingOnDSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxTFCI2Combs-1)
TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
   SEOUENCE {
       cTFC-DSCH
                              TFCS-CTFC,
       iE-Extensions
                                  OPTIONAL,
TFCS-DSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet ::= SEQUENCE {
                          TransportFormatSet-DynamicPartList,
   dynamicParts
   semi-staticPart
                          TransportFormatSet-Semi-staticPart,
                          ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
   SEQUENCE {
       nrOfTransportBlocks
                              NrOfTransportBlocks,
       transportBlockSize
                              TransportBlockSize
                                                     OPTIONAL
       -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
       mode
                          TransportFormatSet-ModeDP,
                              ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
       iE-Extensions
TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeDP ::= CHOICE {
    tdd
                      TDD-TransportFormatSet-ModeDP,
   notApplicable
                      NULL,
```

```
TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation
                                            TransmissionTimeIntervalInformation
                                                                                     OPTIONAL,
    -- This IE shall be present if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is
absent.
                                            ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
    SEQUENCE {
        transmissionTimeInterval TransmissionTimeIntervalDynamic,
                                ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
        iE-Extensions
TransmissionTimeIntervalInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in \frac{25.215}{11}[11]/\frac{25.225}{14}[14]
Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)
TransportFormatManagement ::= ENUMERATED {
    cell-based,
    ue-based,
    . . .
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTime
                            TransmissionTimeIntervalSemiStatic,
    channelCoding
                            ChannelCodingType,
    codingRate
                        CodingRate
                                                 OPTIONAL
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute
                                RateMatchingAttribute,
    cRC-Size
                        CRC-Size,
                        TransportFormatSet-ModeSSP,
    mode
    iE-Extensions
                            ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
TransportFormatSet-ModeSSP ::= CHOICE {
            SecondInterleavingMode,
    notApplicable
                           NULL,
TransportLayerAddress
                             ::= BIT STRING (SIZE(1..160, ...))
TrCH-SrcStatisticsDescr
                          ::= ENUMERATED {
    speech,
    rRC,
    unknown,
    . . .
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
TxDiversityIndicator
                      ::= ENUMERATED {
    true,
    false
TypeOfError ::= ENUMERATED {
    not-understood,
    missing,
-- U
                       ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See 25.101, 25.105[7], [43]
UDRE ::= ENUMERATED {
    lessThan1,
    between1-and-4,
    between4-and-8,
    over8,
```

```
UE-Capabilities-Info ::= SEQUENCE {
   hSDSCH-Physical-Layer-Category
                                        INTEGER (1..64,...),
    mAChs-Reordering-Buffer-Size
                                        MAChsReorderingBufferSize,
   iE-Extensions
                                        ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }
                                                                                                               OPTIONAL,
    . . .
UE-Capabilities-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation ::= ENUMERATED {
   dedicated-pilots-for-channel-estimation-supported
UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH ::= ENUMERATED {
   dedicated-pilots-for-channel-estimation-supported
UL-DL-mode ::= ENUMERATED {
   ul-only,
   dl-only,
   both-ul-and-dl
UL-Timeslot-Information::= SEOUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem
UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
    tFCI-Presence
                                    TFCI-Presence,
   uL-Code-Information
                                    TDD-UL-Code-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem
UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
   uL-Code-LCR-InformationList
                                        TDD-UL-Code-LCR-Information,
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }
    . . .
```

```
UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem
UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot
                               TimeSlot,
   uL-TimeslotISCP
                               UL-TimeslotISCP,
                               ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeSlot-ISCP-LCR-InfoItem
UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR
                                   TimeSlotLCR,
   iSCP
                                   UL-Timeslot-ISCP-Value,
   iE-Extensions
                                    ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }
                                                                                                             OPTIONAL,
UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-ISCP-Value ::= UL-TimeslotISCP
UL-Timeslot-ISCP-Value-IncrDecrThres ::= INTEGER(0..126)
-- Unit dB. Step 0.5dB
-- e.g. Value 100 means 50dB
UL-TimingAdvanceCtrl-LCR ::= SEOUENCE {
    sync-UL-codes-bitmap
                                                BIT STRING (SIZE(8)),
    fPACH-info
                                                FPACH-Information,
   prxUpPCHdes
                                                INTEGER (-120 .. -58, ...),
   syncUL-procParameter
                                                SYNC-UL-ProcParameters,
   mMax
                                                INTEGER (1..32),
Uplink-Compressed-Mode-Method ::= ENUMERATED {
    sFdiv2,
   higher-layer-scheduling,
    . . .
```

```
UL-SIR
                        ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.
UC-ID ::= SEQUENCE {
    rNC-ID
                        RNC-ID,
                        C-ID,
   c-ID
                            ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
   iE-Extensions
UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCCH-SlotFormat
                            ::= INTEGER (0..5,...)
UL-FP-Mode ::= ENUMERATED {
   normal,
   silent,
    . . .
UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
UL-ScramblingCode ::= SEQUENCE {
   ul-ScramblingCodeNumber
                                UL-ScramblingCodeNumber,
    ul-ScramblingCodeLength
                                UL-ScramblingCodeLength,
    iE-Extensions
                            ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
UL-ScramblingCodeNumber
                                ::= INTEGER (0..16777215)
UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
    uL-Synchronisation-StepSize
                                        UL-Synchronisation-StepSize,
   uL-Synchronisation-Frequency
                                            UL-Synchronisation-Frequency,
    iE-Extensions
                                    ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }
                                                                                                                        OPTIONAL,
```

```
UL-Synchronisation-Parameters-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Synchronisation-StepSize ::= INTEGER (1..8)
UL-Synchronisation-Frequency ::= INTEGER (1..8)
UL-TimeslotISCP
                 ::= INTEGER (0..127)
-- According to mapping in [14]
Unidirectional-DCH-Indicator ::= ENUMERATED {
    downlink-DCH-only,
   uplink-DCH-only
                       ::= INTEGER (0..65535)
URA-ID
URA-Information ::= SEQUENCE {
   uRA-ID
                                       URA-ID,
   multipleURAsIndicator
                                       MultipleURAsIndicator,
   rNCsWithCellsInTheAccessedURA-List RNCsWithCellsInTheAccessedURA-List OPTIONAL,
                                       ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item
RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
   rNC-ID
                                   ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
   iE-Extensions
RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ID
                      ::= INTEGER (0..255)
USCH-Information ::= SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem
USCH-InformationItem ::= SEQUENCE {
   uSCH-ID
                                       USCH-ID,
    ul-CCTrCH-ID
                                       CCTrCH-ID,
```

```
trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    rb-Info
                                        RB-Info,
    iE-Extensions
                                        ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                               CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID PRESENCE
                                                                                                                    optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
-- Y
-- Z
END
```

9.3.5 Common Definitions

```
maxProtocolIEs
                                         INTEGER ::= 65535
__ ********************
-- Common Data Types
__ *******************
Criticality
             ::= ENUMERATED { reject, ignore, notify }
Presence
           ::= ENUMERATED { optional, conditional, mandatory }
PrivateIE-ID ::= CHOICE {
   local
                 INTEGER (0.. maxPrivateIEs),
   global
                  OBJECT IDENTIFIER
ProcedureCode
             ::= INTEGER (0..255)
ProcedureID ::= SEQUENCE {
   procedureCode
                       ProcedureCode,
   ddMode
                    ENUMERATED { tdd, fdd, common, ... }
ProtocolIE-ID
             ::= INTEGER (0..maxProtocolIEs)
TransactionID
              ::= CHOICE {
   shortTransActionId INTEGER (0..127),
   longTransActionId INTEGER (0..32767)
TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }
END
```

9.3.6 Constant Definitions

```
TMPORTS
   ProcedureCode,
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
  *************
-- Elementary Procedures
  ******************
id-commonTransportChannelResourcesInitialisation
                                                          ProcedureCode ::= 0
id-commonTransportChannelResourcesRelease
                                                          ProcedureCode ::= 1
id-compressedModeCommand
                                                          ProcedureCode ::= 2
id-downlinkPowerControl
                                                          ProcedureCode ::= 3
id-downlinkPowerTimeslotControl
                                                          ProcedureCode ::= 4
                                                          ProcedureCode ::= 5
id-downlinkSignallingTransfer
id-errorIndication
                                                          ProcedureCode ::= 6
id-dedicatedMeasurementFailure
                                                          ProcedureCode ::= 7
id-dedicatedMeasurementInitiation
                                                          ProcedureCode ::= 8
id-dedicatedMeasurementReporting
                                                          ProcedureCode ::= 9
id-dedicatedMeasurementTermination
                                                          ProcedureCode ::= 10
                                                          ProcedureCode ::= 11
id-paging
id-physicalChannelReconfiguration
                                                          ProcedureCode ::= 12
id-privateMessage
                                                          ProcedureCode ::= 13
id-radioLinkAddition
                                                          ProcedureCode ::= 14
id-radioLinkCongestion
                                                          ProcedureCode ::= 34
id-radioLinkDeletion
                                                          ProcedureCode ::= 15
id-radioLinkFailure
                                                          ProcedureCode ::= 16
                                                          ProcedureCode ::= 17
id-radioLinkPreemption
id-radioLinkRestoration
                                                          ProcedureCode ::= 18
id-radioLinkSetup
                                                          ProcedureCode ::= 19
id-relocationCommit
                                                          ProcedureCode ::= 20
id-synchronisedRadioLinkReconfigurationCancellation
                                                          ProcedureCode ::= 21
id-synchronisedRadioLinkReconfigurationCommit
                                                          ProcedureCode ::= 22
id-synchronisedRadioLinkReconfigurationPreparation
                                                          ProcedureCode ::= 23
id-unSynchronisedRadioLinkReconfiguration
                                                          ProcedureCode ::= 24
id-uplinkSignallingTransfer
                                                          ProcedureCode ::= 25
id-commonMeasurementFailure
                                                          ProcedureCode ::= 26
                                                          ProcedureCode ::= 27
id-commonMeasurementInitiation
id-commonMeasurementReporting
                                                          ProcedureCode ::= 28
                                                          ProcedureCode ::= 29
id-commonMeasurementTermination
id-informationExchangeFailure
                                                          ProcedureCode ::= 30
id-informationExchangeInitiation
                                                          ProcedureCode ::= 31
                                                          ProcedureCode ::= 32
id-informationReporting
                                                          ProcedureCode ::= 33
id-informationExchangeTermination
id-reset
                                                          ProcedureCode ::= 35
id-radioLinkActivation
                                                          ProcedureCode ::= 36
id-gERANuplinkSignallingTransfer
                                                          ProcedureCode ::= 37
id-radioLinkParameterUpdate
                                                          ProcedureCode ::= 38
```

```
-- Lists
__ *******************
                                       INTEGER ::= 255
maxCodeNumComp-1
maxRateMatching
                                       INTEGER ::= 256
maxNoCodeGroups
                                       INTEGER ::= 256
                                       INTEGER ::= 10
maxNoOfDSCHs
maxNoOfDSCHsLCR
                                       INTEGER ::= 10
maxNoOfRB
                                       INTEGER ::= 32
maxNoOfUSCHs
                                       INTEGER ::= 10
maxNoOfUSCHsLCR
                                       INTEGER ::= 10
maxNoTFCIGroups
                                       INTEGER ::= 256
                                       INTEGER ::= 1024
maxNrOfTFCs
maxNrOfTFs
                                       INTEGER ::= 32
maxNrOfCCTrCHs
                                       INTEGER ::= 16
maxNrOfCCTrCHsLCR
                                       INTEGER ::= 16
maxNrOfDCHs
                                       INTEGER ::= 128
                                       INTEGER ::= 8
maxNrOfDL-Codes
maxNrOfDPCHs
                                       INTEGER ::= 240
maxNrOfDPCHsLCR
                                       INTEGER ::= 240
                                       INTEGER ::= 256
maxNrOfErrors
maxNrOfMACcshSDU-Length
                                       INTEGER ::= 16
maxNrOfPoints
                                       INTEGER ::= 15
maxNrOfRLs
                                       INTEGER ::= 16
maxNrOfRLSets
                                       INTEGER ::= maxNrOfRLs
                                       INTEGER ::= 15 -- maxNrOfRLSets - 1
maxNrOfRLSets-1
maxNrOfRLs-1
                                       INTEGER ::= 15 -- maxNrOfRLs - 1
maxNrOfRLs-2
                                       INTEGER ::= 14 -- maxNrOfRLs - 2
maxNrOfULTs
                                       INTEGER ::= 15
                                       INTEGER ::= 6
maxNrOfULTsLCR
maxNrOfDLTs
                                       INTEGER ::= 15
maxNrOfDLTsLCR
                                       INTEGER ::= 6
maxRNCinURA-1
                                       INTEGER ::= 15
maxTTI-Count
                                       INTEGER ::= 4
maxCTFC
                                       INTEGER ::= 16777215
maxNrOfNeighbouringRNCs
                                       INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC
                                       INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC
                                       INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC
                                       INTEGER ::= 256
                                       INTEGER ::= 8
maxNrOfFACHs
maxNrOfLCRTDDNeighboursPerRNC
                                       INTEGER ::= 256
maxFACHCountPlus1
                                       INTEGER ::= 10
maxIBSEG
                                       INTEGER ::= 16
maxNrOfSCCPCHs
                                       INTEGER ::= 8
maxTFCI1Combs
                                       INTEGER ::= 512
maxTFCI2Combs
                                       INTEGER ::= 1024
maxTFCI2Combs-1
                                       INTEGER ::= 1023
```

```
maxTGPS
                                        INTEGER ::= 6
maxNrOfTS
                                        INTEGER ::= 15
maxNrOfLevels
                                        INTEGER ::= 256
maxNoOfDSCHs-1
                                        INTEGER ::= 9
maxNrOfTsLCR
                                        INTEGER ::= 6
maxNoSat
                                        INTEGER ::= 16
maxNoGPSTypes
                                        INTEGER ::= 8
maxNrOfMeasNCell
                                        INTEGER ::= 96
maxNrOfMeasNCell-1
                                        INTEGER ::= 95
                                                       -- maxNrOfMeasNCell - 1
maxResetContext
                                        INTEGER ::= 250
                                        INTEGER ::= 32
maxResetContextGroup
maxNrOfHAROProc
                                        INTEGER ::= 8
maxNrOfHSSCCHCodes
                                        INTEGER ::= 4
maxNrOfHSSICHs
                                        INTEGER ::= 4
maxNrOfMACdFlows
                                        INTEGER ::= 8
maxNrOfMACdFlows-1
                                        INTEGER ::= 7
                                                        -- maxNrOfMACdFlows - 1
maxNrOfPDUIndexes
                                        INTEGER ::= 8
maxNrOfPDUIndexes-1
                                        INTEGER ::= 7
                                                        -- maxNrOfPDUIndexes - 1
maxNrOfPrioQueues
                                        INTEGER ::= 8
                                        INTEGER ::= 7 -- maxNrOfPrioOueues - 1
maxNrOfPrioOueues-1
maxNrOfSNAs
                                        INTEGER ::= 6553<del>5</del>6
maxNrOfPriorityClasses
                                        INTEGER ::= 16
-- IEs
__ **********************
id-AllowedOueuingTime
                                                                            ProtocolIE-ID ::= 4
id-Allowed-Rate-Information
                                                                            ProtocolIE-ID ::= 42
id-AntennaColocationIndicator
                                                                            ProtocolIE-ID ::= 309
id-BindingID
                                                                            ProtocolIE-ID ::= 5
id-C-ID
                                                                            ProtocolIE-ID ::= 6
id-C-RNTI
                                                                            ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value
                                                                            ProtocolIE-ID ::= 303
                                                                            ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier
                                                                            ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier
                                                                            ProtocolIE-ID ::= 10
id-Cause
                                                                            ProtocolIE-ID ::= 11
id-CoverageIndicator
                                                                            ProtocolIE-ID ::= 310
id-CriticalityDiagnostics
                                                                            ProtocolIE-ID ::= 20
id-ContextInfoItem-Reset
                                                                            ProtocolIE-ID ::= 211
id-ContextGroupInfoItem-Reset
                                                                            ProtocolIE-ID ::= 515
id-D-RNTI
                                                                            ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication
                                                                            ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD
                                                                            ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD
                                                                            ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD
                                                                            ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD
                                                                            ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD
                                                                            ProtocolIE-ID ::= 32
```

| · · · · · · · · · · · · · · · · · · · | |
|--|-----------------------|
| id-DCH-DeleteList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 33 |
| id-DCH-FDD-Information | ProtocolIE-ID ::= 34 |
| id-DCH-TDD-Information | ProtocolIE-ID ::= 35 |
| id-FDD-DCHs-to-Modify | ProtocolIE-ID ::= 39 |
| id-TDD-DCHs-to-Modify | ProtocolIE-ID ::= 40 |
| id-DCH-InformationResponse | ProtocolIE-ID ::= 43 |
| id-DCH-Rate-InformationItem-RL-CongestInd | ProtocolIE-ID ::= 38 |
| id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD | ProtocolIE-ID ::= 44 |
| id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 45 |
| id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD | ProtocolIE-ID ::= 46 |
| id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD | ProtocolIE-ID ::= 47 |
| id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD | ProtocolIE-ID ::= 48 |
| id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 49 |
| id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 50 |
| id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 51 |
| id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 52 |
| id-DL-CCTrCH-InformationList-RL-SetupRqstTDD | ProtocolIE-ID ::= 53 |
| id-FDD-DL-CodeInformation | ProtocolIE-ID ::= 54 |
| id-DL-DPCH-Information-RL-ReconfPrepFDD | ProtocolIE-ID ::= 59 |
| id-DL-DPCH-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 60 |
| id-DL-DPCH-Information-RL-ReconfRqstFDD | ProtocolIE-ID ::= 61 |
| ${	t id-DL-DPCH-InformationItem-PhyChReconfRqstTDD}$ | ProtocolIE-ID ::= 62 |
| id-DL-DPCH-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 63 |
| id-DL-DPCH-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 64 |
| id-DL-DPCH-TimingAdjustment | ProtocolIE-ID ::= 278 |
| id-DLReferencePower | ProtocolIE-ID ::= 67 |
| id-DLReferencePowerList-DL-PC-Rqst | ProtocolIE-ID ::= 68 |
| id-DL-ReferencePowerInformation-DL-PC-Rqst | ProtocolIE-ID ::= 69 |
| id-DPC-Mode | ProtocolIE-ID ::= 12 |
| id-DRXCycleLengthCoefficient | ProtocolIE-ID ::= 70 |
| id-DedicatedMeasurementObjectType-DM-Fail-Ind | ProtocolIE-ID ::= 470 |
| id-DedicatedMeasurementObjectType-DM-Fail | ProtocolIE-ID ::= 471 |
| id-DedicatedMeasurementObjectType-DM-Rprt | ProtocolIE-ID ::= 71 |
| id-DedicatedMeasurementObjectType-DM-Rqst | ProtocolIE-ID ::= 72 |
| id-DedicatedMeasurementObjectType-DM-Rsp | ProtocolIE-ID ::= 73 |
| id-DedicatedMeasurementType | ProtocolIE-ID ::= 74 |
| id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD | ProtocolIE-ID ::= 82 |
| id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD | ProtocolIE-ID ::= 83 |
| id-Guaranteed-Rate-Information | ProtocolIE-ID ::= 41 |
| id-IMSI | ProtocolIE-ID ::= 84 |
| id-HCS-Prio | ProtocolIE-ID ::= 311 |
| id-L3-Information | ProtocolIE-ID ::= 85 |
| id-AdjustmentPeriod | ProtocolIE-ID ::= 90 |
| id-MaxAdjustmentStep | ProtocolIE-ID ::= 91 |
| id-MeasurementFilterCoefficient | ProtocolIE-ID ::= 92 |
| id-MessageStructure | ProtocolIE-ID ::= 57 |
| id-MeasurementID | ProtocolIE-ID ::= 93 |
| id-Neighbouring-GSM-CellInformation | ProtocolIE-ID ::= 13 |
| id-Neighbouring-UMTS-CellInformationItem | ProtocolIE-ID ::= 95 |
| id-NRT-Load-Information-Value | ProtocolIE-ID ::= 305 |
| id-NRT-Load-Information-Value-IncrDecrThres | ProtocolIE-ID ::= 306 |
| | |

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|--|-----------------------|
| id-PagingArea-PagingRqst | ProtocolIE-ID ::= 102 |
| id-FACH-FlowControlInformation | ProtocolIE-ID ::= 103 |
| id-PartialReportingIndicator | ProtocolIE-ID ::= 472 |
| id-Permanent-NAS-UE-Identity | ProtocolIE-ID ::= 17 |
| id-PowerAdjustmentType | ProtocolIE-ID ::= 107 |
| id-RANAP-RelocationInformation | ProtocolIE-ID ::= 109 |
| id-RL-Information-PhyChReconfRqstFDD | ProtocolIE-ID ::= 110 |
| id-RL-Information-PhyChReconfRqstTDD | ProtocolIE-ID ::= 111 |
| id-RL-Information-RL-AdditionRqstFDD | ProtocolIE-ID ::= 112 |
| id-RL-Information-RL-AdditionRqstTDD | ProtocolIE-ID ::= 113 |
| id-RL-Information-RL-DeletionRqst | ProtocolIE-ID ::= 114 |
| id-RL-Information-RL-FailureInd | ProtocolIE-ID ::= 115 |
| id-RL-Information-RL-ReconfPrepFDD | ProtocolIE-ID ::= 116 |
| id-RL-Information-RL-RestoreInd | ProtocolIE-ID ::= 117 |
| id-RL-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 118 |
| id-RL-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 119 |
| id-RL-InformationItem-RL-CongestInd | ProtocolIE-ID ::= 55 |
| id-RL-InformationItem-DM-Rprt | ProtocolIE-ID ::= 120 |
| id-RL-InformationItem-DM-Rqst | ProtocolIE-ID ::= 121 |
| id-RL-InformationItem-DM-Rsp | ProtocolIE-ID ::= 122 |
| id-RL-InformationItem-RL-PreemptRequiredInd | ProtocolIE-ID ::= 2 |
| id-RL-InformationItem-RL-SetupRqstFDD | ProtocolIE-ID ::= 123 |
| id-RL-InformationList-RL-CongestInd | ProtocolIE-ID ::= 56 |
| id-RL-InformationList-RL-AdditionRqstFDD | ProtocolIE-ID ::= 124 |
| id-RL-InformationList-RL-DeletionRqst | ProtocolIE-ID ::= 125 |
| id-RL-InformationList-RL-PreemptRequiredInd | ProtocolIE-ID ::= 1 |
| id-RL-InformationList-RL-ReconfPrepFDD | ProtocolIE-ID ::= 126 |
| id-RL-InformationResponse-RL-AdditionRspTDD | ProtocolIE-ID ::= 127 |
| id-RL-InformationResponse-RL-ReconfReadyTDD | ProtocolIE-ID ::= 128 |
| id-RL-InformationResponse-RL-SetupRspTDD | ProtocolIE-ID ::= 129 |
| id-RL-InformationResponseItem-RL-AdditionRspFDD | ProtocolIE-ID ::= 130 |
| id-RL-InformationResponseItem-RL-ReconfReadyFDD | ProtocolIE-ID ::= 131 |
| id-RL-InformationResponseItem-RL-ReconfRspFDD | ProtocolIE-ID ::= 132 |
| id-RL-InformationResponseItem-RL-SetupRspFDD | ProtocolIE-ID ::= 133 |
| id-RL-InformationResponseList-RL-AdditionRspFDD | ProtocolIE-ID ::= 134 |
| id-RL-InformationResponseList-RL-ReconfReadyFDD | ProtocolIE-ID ::= 135 |
| id-RL-InformationResponseList-RL-ReconfRspFDD | ProtocolIE-ID ::= 136 |
| id-RL-InformationResponse-RL-ReconfRspTDD | ProtocolIE-ID ::= 28 |
| id-RL-InformationResponseList-RL-SetupRspFDD | ProtocolIE-ID ::= 137 |
| id-RL-ReconfigurationFailure-RL-ReconfFail | ProtocolIE-ID ::= 141 |
| id-RL-Set-InformationItem-DM-Rprt | ProtocolIE-ID ::= 143 |
| id-RL-Set-InformationItem-DM-Rqst | ProtocolIE-ID ::= 144 |
| id-RL-Set-InformationItem-DM-Rsp | ProtocolIE-ID ::= 145 |
| id-RL-Set-Information-RL-FailureInd | ProtocolIE-ID ::= 146 |
| id-RL-Set-Information-RL-RestoreInd | ProtocolIE-ID ::= 147 |
| id-RL-Set-Successful-InformationItem-DM-Fail | ProtocolIE-ID ::= 473 |
| id-RL-Set-Unsuccessful-InformationItem-DM-Fail | ProtocolIE-ID ::= 474 |
| id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind | ProtocolIE-ID ::= 475 |
| id-RL-Successful-InformationItem-DM-Fail | ProtocolIE-ID ::= 476 |
| id-RL-Unsuccessful-InformationItem-DM-Fail | ProtocolIE-ID ::= 477 |
| id-RL-Unsuccessful-InformationItem-DM-Fail-Ind | ProtocolIE-ID ::= 478 |
| | |

| Error: No text of specified style in document. | |
|---|-----------------------|
| id-ReportCharacteristics | ProtocolIE-ID ::= 152 |
| id-Reporting-Object-RL-FailureInd | ProtocolIE-ID ::= 153 |
| id-Reporing-Object-RL-RestoreInd | ProtocolIE-ID ::= 154 |
| id-RT-Load-Value | ProtocolIE-ID ::= 307 |
| id-RT-Load-Value-IncrDecrThres | ProtocolIE-ID ::= 308 |
| id-S-RNTI | ProtocolIE-ID ::= 155 |
| id-ResetIndicator | ProtocolIE-ID ::= 244 |
| id-RNC-ID | ProtocolIE-ID ::= 245 |
| id-SAI | ProtocolIE-ID ::= 156 |
| id-SRNC-ID | ProtocolIE-ID ::= 157 |
| id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD | ProtocolIE-ID ::= 159 |
| id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD | ProtocolIE-ID ::= 160 |
| id-TransportBearerID | ProtocolIE-ID ::= 163 |
| id-TransportBearerRequestIndicator | ProtocolIE-ID ::= 164 |
| id-TransportLayerAddress | ProtocolIE-ID ::= 165 |
| id-TypeOfError | ProtocolIE-ID ::= 140 |
| id-UC-ID | ProtocolIE-ID ::= 166 |
| id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD | ProtocolIE-ID ::= 167 |
| id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 169 |
| id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD | ProtocolIE-ID ::= 171 |
| id-UL-CCTrCH-InformationList-RL-SetupRgstTDD | ProtocolIE-ID ::= 172 |
| id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD | ProtocolIE-ID ::= 173 |
| id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 174 |
| id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 175 |
| id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 176 |
| id-UL-DPCH-Information-RL-ReconfPrepFDD | ProtocolIE-ID ::= 177 |
| id-UL-DPCH-Information-RL-ReconfRgstFDD | ProtocolIE-ID ::= 178 |
| id-UL-DPCH-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 179 |
| id-UL-DPCH-InformationItem-PhyChReconfRqstTDD | ProtocolIE-ID ::= 180 |
| id-UL-DPCH-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 181 |
| id-UL-DPCH-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 182 |
| id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 183 |
| id-UL-SIRTarget | ProtocolIE-ID ::= 184 |
| id-URA-Information | ProtocolIE-ID ::= 185 |
| id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD | ProtocolIE-ID ::= 188 |
| id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD | ProtocolIE-ID ::= 189 |
| id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD | ProtocolIE-ID ::= 190 |
| id-Active-Pattern-Sequence-Information | ProtocolIE-ID ::= 193 |
| id-AdjustmentRatio | ProtocolIE-ID ::= 194 |
| id-CauseLevel-RL-AdditionFailureFDD | ProtocolIE-ID ::= 197 |
| id-CauseLevel-RL-AdditionFailureTDD | ProtocolIE-ID ::= 198 |
| id-CauseLevel-RL-ReconfFailure | ProtocolIE-ID ::= 199 |
| id-CauseLevel-RL-SetupFailureFDD | ProtocolIE-ID ::= 200 |
| id-CauseLevel-RL-SetupFailureTDD | ProtocolIE-ID ::= 201 |
| id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD | ProtocolIE-ID ::= 205 |
| id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD | ProtocolIE-ID ::= 206 |
| id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD | ProtocolIE-ID ::= 207 |
| id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 208 |
| id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 209 |
| id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 210 |
| id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 212 |
| | |

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|---|-----------------------|
| id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 213 |
| id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 214 |
| id-DSCHs-to-Add-TDD | ProtocolIE-ID ::= 215 |
| id-DSCHs-to-Add-FDD | ProtocolIE-ID ::= 216 |
| id-DSCH-DeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 217 |
| id-DSCH-Delete-RL-ReconfPrepFDD | ProtocolIE-ID ::= 218 |
| id-DSCH-FDD-Information | ProtocolIE-ID ::= 219 |
| id-DSCH-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 220 |
| id-DSCH-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 221 |
| id-DSCH-TDD-Information | ProtocolIE-ID ::= 222 |
| id-DSCH-FDD-InformationResponse | ProtocolIE-ID ::= 223 |
| id-DSCH-Information-RL-SetupRqstFDD | ProtocolIE-ID ::= 226 |
| id-DSCH-ModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 227 |
| id-DSCH-Modify-RL-ReconfPrepFDD | ProtocolIE-ID ::= 228 |
| id-DSCH-Specific-FDD-Additional-List | ProtocolIE-ID ::= 324 |
| id-DSCHsToBeAddedOrModified-FDD | ProtocolIE-ID ::= 229 |
| ${\tt id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD}$ | ProtocolIE-ID ::= 230 |
| id-EnhancedDSCHPC | ProtocolIE-ID ::= 29 |
| id-EnhancedDSCHPCIndicator | ProtocolIE-ID ::= 225 |
| id-GA-Cell | ProtocolIE-ID ::= 232 |
| id-GA-CellAdditionalShapes | ProtocolIE-ID ::= 3 |
| id-SSDT-CellIDforEDSCHPC | ProtocolIE-ID ::= 246 |
| id-Transmission-Gap-Pattern-Sequence-Information | ProtocolIE-ID ::= 255 |
| id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD | ProtocolIE-ID ::= 256 |
| id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD | ProtocolIE-ID ::= 257 |
| id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD | ProtocolIE-ID ::= 258 |
| id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 259 |
| id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 260 |
| id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 261 |
| id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD | ProtocolIE-ID ::= 262 |
| id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD | ProtocolIE-ID ::= 263 |
| id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 264 |
| id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 265 |
| id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD | ProtocolIE-ID ::= 266 |
| id-USCHs-to-Add | ProtocolIE-ID ::= 267 |
| id-USCH-DeleteList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 268 |
| ${\tt id-USCH-InformationListIE-RL-AdditionRspTDD}$ | ProtocolIE-ID ::= 269 |
| id-USCH-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 270 |
| id-USCH-Information | ProtocolIE-ID ::= 271 |
| id-USCH-ModifyList-RL-ReconfPrepTDD | ProtocolIE-ID ::= 272 |
| id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD | ProtocolIE-ID ::= 273 |
| id-DL-Physical-Channel-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 274 |
| id-UL-Physical-Channel-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 275 |
| id-ClosedLoopModel-SupportIndicator | ProtocolIE-ID ::= 276 |
| id-ClosedLoopMode2-SupportIndicator | ProtocolIE-ID ::= 277 |
| id-STTD-SupportIndicator | ProtocolIE-ID ::= 279 |
| id-CFNReportingIndicator | ProtocolIE-ID ::= 14 |
| id-CNOriginatedPage-PagingRqst | ProtocolIE-ID ::= 23 |
| id-InnerLoopDLPCStatus | ProtocolIE-ID ::= 24 |
| id-PropagationDelay | ProtocolIE-ID ::= 25 |
| id-RxTimingDeviationForTA | ProtocolIE-ID ::= 36 |
| | |

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|--|-----------------------|
| id-timeSlot-ISCP | ProtocolIE-ID ::= 37 |
| id-CCTrCH-InformationItem-RL-FailureInd | ProtocolIE-ID ::= 15 |
| id-CCTrCH-InformationItem-RL-RestoreInd | ProtocolIE-ID ::= 16 |
| id-CommonMeasurementAccuracy | ProtocolIE-ID ::= 280 |
| id-CommonMeasurementObjectType-CM-Rprt | ProtocolIE-ID ::= 281 |
| id-CommonMeasurementObjectType-CM-Rqst | ProtocolIE-ID ::= 282 |
| id-CommonMeasurementObjectType-CM-Rsp | ProtocolIE-ID ::= 283 |
| id-CommonMeasurementType | ProtocolIE-ID ::= 284 |
| id-CongestionCause | ProtocolIE-ID ::= 18 |
| id-SFN | ProtocolIE-ID ::= 285 |
| id-SFNReportingIndicator | ProtocolIE-ID ::= 286 |
| id-InformationExchangeID | ProtocolIE-ID ::= 287 |
| id-InformationExchangeObjectType-InfEx-Rprt | ProtocolIE-ID ::= 288 |
| id-InformationExchangeObjectType-InfEx-Rqst | ProtocolIE-ID ::= 289 |
| id-InformationExchangeObjectType-InfEx-Rsp | ProtocolIE-ID ::= 290 |
| id-InformationReportCharacteristics | ProtocolIE-ID ::= 291 |
| id-InformationType | ProtocolIE-ID ::= 292 |
| id-neighbouring-LCR-TDD-CellInformation | ProtocolIE-ID ::= 58 |
| id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD | ProtocolIE-ID ::= 65 |
| id-RL-LCR-InformationResponse-RL-SetupRspTDD | ProtocolIE-ID ::= 66 |
| id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 75 |
| id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 76 |
| id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD | ProtocolIE-ID ::= 77 |
| id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 78 |
| id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 79 |
| id-USCH-LCR-InformationListIEs-RL-SetupRspTDD | ProtocolIE-ID ::= 80 |
| id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD | ProtocolIE-ID ::= 81 |
| id-RL-LCR-InformationResponse-RL-AdditionRspTDD | ProtocolIE-ID ::= 86 |
| id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 87 |
| id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 88 |
| id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD | ProtocolIE-ID ::= 89 |
| id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD | ProtocolIE-ID ::= 94 |
| id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD | ProtocolIE-ID ::= 96 |
| id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD | ProtocolIE-ID ::= 97 |
| id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 98 |
| id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD | ProtocolIE-ID ::= 100 |
| id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD | ProtocolIE-ID ::= 101 |
| id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD | ProtocolIE-ID ::= 104 |
| $\verb id-UL-Times ot-LCR-InformationList-PhyChReconfRqstTDD $ | ProtocolIE-ID ::= 105 |
| id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD | ProtocolIE-ID ::= 106 |
| id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD | ProtocolIE-ID ::= 138 |
| id-TSTD-Support-Indicator-RL-SetupRqstTDD | ProtocolIE-ID ::= 139 |
| id-RestrictionStateIndicator | ProtocolIE-ID ::= 142 |
| id-Load-Value | ProtocolIE-ID ::= 233 |
| id-Load-Value-IncrDecrThres | ProtocolIE-ID ::= 234 |
| id-OnModification | ProtocolIE-ID ::= 235 |
| id-Received-Total-Wideband-Power-Value | ProtocolIE-ID ::= 236 |
| id-Received-Total-Wideband-Power-Value-IncrDecrThres | ProtocolIE-ID ::= 237 |
| id-SFNSFNMeasurementThresholdInformation | ProtocolIE-ID ::= 238 |
| id-Transmitted-Carrier-Power-Value | ProtocolIE-ID ::= 239 |
| id-Transmitted-Carrier-Power-Value-IncrDecrThres | ProtocolIE-ID ::= 240 |
| | |

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| ${\tt id-TUTRANGPSMeasurementThresholdInformation}$ | ProtocolIE-ID ::= 241 |
| id-UL-Timeslot-ISCP-Value | ProtocolIE-ID ::= 242 |
| id-UL-Timeslot-ISCP-Value-IncrDecrThres | ProtocolIE-ID ::= 243 |
| id-Rx-Timing-Deviation-Value-LCR | ProtocolIE-ID ::= 293 |
| id-DPC-Mode-Change-SupportIndicator | ProtocolIE-ID ::= 19 |
| id-SplitType | ProtocolIE-ID ::= 247 |
| id-LengthOfTFC12 | ProtocolIE-ID ::= 295 |
| id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD | ProtocolIE-ID ::= 202 |
| id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD | ProtocolIE-ID ::= 203 |
| id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD | ProtocolIE-ID ::= 204 |
| id-DSCH-RNTI | ProtocolIE-ID ::= 249 |
| id-DL-PowerBalancing-Information | ProtocolIE-ID ::= 296 |
| id-DL-PowerBalancing-ActivationIndicator | ProtocolIE-ID ::= 297 |
| id-DL-PowerBalancing-UpdatedIndicator | ProtocolIE-ID ::= 298 |
| id-DL-ReferencePowerInformation | ProtocolIE-ID ::= 299 |
| id-Enhanced-PrimaryCPICH-EcNo | ProtocolIE-ID ::= 224 |
| id-IPDL-TDD-ParametersLCR | ProtocolIE-ID ::= 252 |
| id-CellCapabilityContainer-FDD | ProtocolIE-ID ::= 300 |
| id-CellCapabilityContainer-TDD | ProtocolIE-ID ::= 301 |
| id-CellCapabilityContainer-TDD-LCR | ProtocolIE-ID ::= 302 |
| id-RL-Specific-DCH-Info | ProtocolIE-ID ::= 317 |
| id-RL-ReconfigurationRequestFDD-RL-InformationList | ProtocolIE-ID ::= 318 |
| id-RL-ReconfigurationRequestFDD-RL-Information-IEs | ProtocolIE-ID ::= 319 |
| id-RL-ReconfigurationReadyTDD-RL-Information | ProtocolIE-ID ::= 320 |
| id-RL-ReconfigurationRequestTDD-RL-Information | ProtocolIE-ID ::= 321 |
| $\verb id-CommonTransportChannelResourcesInitialisationNotRequired \\$ | ProtocolIE-ID ::= 250 |
| id-DelayedActivation | ProtocolIE-ID ::= 312 |
| id-DelayedActivationList-RL-ActivationCmdFDD | ProtocolIE-ID ::= 313 |
| id-DelayedActivationInformation-RL-ActivationCmdFDD | ProtocolIE-ID ::= 314 |
| id-DelayedActivationList-RL-ActivationCmdTDD | ProtocolIE-ID ::= 315 |
| id-DelayedActivationInformation-RL-ActivationCmdTDD | ProtocolIE-ID ::= 316 |
| id-neighbouringTDDCellMeasurementInformationLCR | ProtocolIE-ID ::= 251 |
| id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 150 |
| id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD | ProtocolIE-ID ::= 151 |
| id-PrimCCPCH-RSCP-DL-PC-RqstTDD | ProtocolIE-ID ::= 451 |
| id-HSDSCH-FDD-Information | ProtocolIE-ID ::= 452 |
| id-HSDSCH-FDD-Information-Response | ProtocolIE-ID ::= 453 |
| id-HSDSCH-FDD-Information-to-Add | ProtocolIE-ID ::= 454 |
| id-HSDSCH-FDD-Information-to-Delete | ProtocolIE-ID ::= 455 |
| id-HSDSCH-FDD-Update-Information | ProtocolIE-ID ::= 466 |
| id-HSDSCH-Information-to-Modify | ProtocolIE-ID ::= 456 |
| id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd | ProtocolIE-ID ::= 516 |
| id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd | ProtocolIE-ID ::= 517 |
| id-HSDSCH-RNTI | ProtocolIE-ID ::= 457 |
| id-HSDSCH-TDD-Information | ProtocolIE-ID ::= 458 |
| id-HSDSCH-TDD-Information-Response | ProtocolIE-ID ::= 459 |
| id-HSDSCH-TDD-Information-Response-LCR | ProtocolIE-ID ::= 460 |
| id-HSDSCH-TDD-Information-to-Add | ProtocolIE-ID ::= 461 |
| id-HSDSCH-TDD-Information-to-Delete | ProtocolIE-ID ::= 462 |
| id-HSDSCH-TDD-Update-Information | ProtocolIE-ID ::= 467 |
| id-HSPDSCH-RL-ID | ProtocolIE-ID ::= 463 |
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|---|-----------------------|
| id-Angle-Of-Arrival-Value-LCR | ProtocolIE-ID ::= 148 |
| id-TrafficClass | ProtocolIE-ID ::= 158 |
| id-TFCI-PC-SupportIndicator | ProtocolIE-ID ::= 248 |
| id-Qth-Parameter | ProtocolIE-ID ::= 253 |
| id-PDSCH-RL-ID | ProtocolIE-ID ::= 323 |
| id-TimeSlot-RL-SetupRspTDD | ProtocolIE-ID ::= 325 |
| id-GERAN-Cell-Capability | ProtocolIE-ID ::= 468 |
| id-GERAN-Classmark | ProtocolIE-ID ::= 469 |
| id-DSCH-InitialWindowSize | ProtocolIE-ID ::= 480 |
| id-UL-Synchronisation-Parameters-LCR | ProtocolIE-ID ::= 464 |
| id-SNA-Information | ProtocolIE-ID ::= 479 |
| id-MAChs-ResetIndicator | ProtocolIE-ID ::= 465 |
| id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD | ProtocolIE-ID ::= 481 |
| id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD | ProtocolIE-ID ::= 482 |
| id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD | ProtocolIE-ID ::= 483 |
| id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD | ProtocolIE-ID ::= 484 |
| id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD | ProtocolIE-ID ::= 485 |
| id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD | ProtocolIE-ID ::= 486 |
| id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD | ProtocolIE-ID ::= 487 |
| id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD | ProtocolIE-ID ::= 488 |
| id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD | ProtocolIE-ID ::= 489 |
| id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD | ProtocolIE-ID ::= 490 |
| id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD | ProtocolIE-ID ::= 491 |
| id-UL-TimingAdvanceCtrl-LCR | ProtocolIE-ID ::= 492 |
| ${\tt id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD}$ | ProtocolIE-ID ::= 493 |
| id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD | ProtocolIE-ID ::= 494 |
| id-HS-SICH-Reception-Quality | ProtocolIE-ID ::= 495 |
| id-HS-SICH-Reception-Quality-Measurement-Value | ProtocolIE-ID ::= 496 |
| id-HSSICH-Info-DM-Rprt | ProtocolIE-ID ::= 497 |
| id-HSSICH-Info-DM-Rqst | ProtocolIE-ID ::= 498 |
| id-HSSICH-Info-DM-Rsp | ProtocolIE-ID ::= 499 |
| id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD | ProtocolIE-ID ::= 500 |
| id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD | ProtocolIE-ID ::= 501 |
| id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD | ProtocolIE-ID ::= 502 |
| id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD | ProtocolIE-ID ::= 503 |
| id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD | ProtocolIE-ID ::= 504 |
| id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD | ProtocolIE-ID ::= 505 |
| id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD | ProtocolIE-ID ::= 506 |
| id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD | ProtocolIE-ID ::= 507 |
| id-DL-CCTrCH-InformationList-RL-ReconfRspTDD | ProtocolIE-ID ::= 508 |
| id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD | ProtocolIE-ID ::= 509 |
| id-Maximum-DL-Power-TimeslotLCR-InformationItem | ProtocolIE-ID ::= 510 |
| id-Minimum-DL-Power-TimeslotLCR-InformationItem | ProtocolIE-ID ::= 511 |
| id-TDD-Support-8PSK | ProtocolIE-ID ::= 512 |
| id-TDD-maxNrDLPhysicalchannels | ProtocolIE-ID ::= 513 |
| id-ExtendedGSMCellIndividualOffset | ProtocolIE-ID ::= 514 |
| id-RL-ParameterUpdateIndicationFDD-RL-InformationList | ProtocolIE-ID ::= 518 |
| id-Primary-CPICH-Usage-For-Channel-Estimation | ProtocolIE-ID ::= 519 |
| id-Secondary-CPICH-Information-Change | ProtocolIE-ID ::= 521 |
| id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation | ProtocolIE-ID ::= 522 |
| id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH | ProtocolIE-ID ::= 523 |
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| id-RL-ParameterUpdateIndicationFDD-RL-Information-Item | ProtocolIE-ID ::= 524 |
|--|-----------------------|
| id-Phase-Reference-Update-Indicator | ProtocolIE-ID ::= 525 |
| id-Unidirectional-DCH-Indicator | ProtocolIE-ID ::= 526 |
| id-RTLoadValue | ProtocolIE-ID ::= 535 |
| id-NRTLoadInformationValue | ProtocolIE-ID ::= 536 |

END

9.3.7 Container Definitions

```
__ *********************
-- Container definitions
__ **********************
RNSAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Containers (5) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
   -- IE parameter types from other modules.
__ **********************
IMPORTS
  maxPrivateIEs,
  maxProtocolExtensions,
  maxProtocolIEs,
  Criticality,
  Presence,
  PrivateIE-ID,
  ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
__ **********************
-- Class Definition for Protocol IEs
RNSAP-PROTOCOL-IES ::= CLASS {
      ProtocolIE-ID
                                     UNIQUE,
```

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```
&criticality
                       Criticality,
   &Value,
   &presence
                    Presence
WITH SYNTAX {
   ID
                 &id
   CRITICALITY
                    &criticality
   TYPE
                    &Value
   PRESENCE
                    &presence
    *****************
-- Class Definition for Protocol IEs
__ ***********************************
RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
                ProtocolIE-ID
                                            UNIQUE,
   &firstCriticality
                       Criticality,
   &FirstValue,
   &secondCriticality
                       Criticality,
   &SecondValue,
   &presence
                    Presence
WITH SYNTAX {
                 &id
   ID
   FIRST CRITICALITY
                       &firstCriticality
   FIRST TYPE
                    &FirstValue
                       &secondCriticality
   SECOND CRITICALITY
   SECOND TYPE
                    &SecondValue
   PRESENCE
                    &presence
    ******************
-- Class Definition for Protocol Extensions
__ *********************
RNSAP-PROTOCOL-EXTENSION ::= CLASS {
   &id
                 ProtocolIE-ID
                                         UNIQUE,
   &criticality
                       Criticality,
   &Extension,
   &presence
                 Presence
WITH SYNTAX {
   ID
                 &id
   CRITICALITY
                    &criticality
   EXTENSION
                    &Extension
   PRESENCE
                    &presence
```

```
__ *******************
-- Class Definition for Private IEs
__ ********************
RNSAP-PRIVATE-IES ::= CLASS {
  &id PrivateIE-ID,
  &criticality Criticality,
  &Value,
  &presence
          Presence
WITH SYNTAX {
  TD
           &id
  CRITICALITY &criticality
          &Value
  TYPE
  PRESENCE &presence
  -- Container for Protocol IEs
__ *********************
ProtocolIE-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
  SEQUENCE (SIZE (0..maxProtocolIEs)) OF
  ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Single-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
  ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Field {RNSAP-PROTOCOL-IES : IESSetParam} ::= SEQUENCE {
  id RNSAP-PROTOCOL-IES.&id ({IEsSetParam}),
  value
              RNSAP-PROTOCOL-IES.&Value
                                           ({IEsSetParam}{@id})
   -- Container for Protocol IE Pairs
__ *********************
ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
  SEQUENCE (SIZE (0..maxProtocolIEs)) OF
  ProtocolIE-FieldPair {{IEsSetParam}}
ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
```

```
RNSAP-PROTOCOL-IES-PAIR.&id
                                                ({IEsSetParam}),
   firstCriticality RNSAP-PROTOCOL-IES-PAIR.&firstCriticality ({IEsSetParam}{@id}),
                                                          ({IEsSetParam}{@id}),
   firstValue
                    RNSAP-PROTOCOL-IES-PAIR.&FirstValue
   secondCriticality RNSAP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),
   secondValue
                    RNSAP-PROTOCOL-IES-PAIR.&SecondValue
                                                              ({IEsSetParam}{@id})
    *****************
  Container Lists for Protocol IE Containers
  ****************
ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-Container {{IEsSetParam}}
ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-ContainerPair {{IEsSetParam}}
__ *********************
-- Container for Protocol Extensions
  *****************
ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
   SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
   ProtocolExtensionField {{ExtensionSetParam}}
ProtocolExtensionField { RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam } ::= SEQUENCE {
   id
                 RNSAP-PROTOCOL-EXTENSION.&id
                                                   ({ExtensionSetParam}),
                                                          ({ExtensionSetParam}{@id}),
   criticality
                    RNSAP-PROTOCOL-EXTENSION.&criticality
                                                          ({ExtensionSetParam}{@id})
   extensionValue
                       RNSAP-PROTOCOL-EXTENSION. & Extension
     Container for Private IEs
  ************************
PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (1..maxPrivateIEs)) OF
   PrivateIE-Field {{IEsSetParam}}
PrivateIE-Field {RNSAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
                RNSAP-PRIVATE-IES.&id
                                             ({IEsSetParam}),
   criticality
                   RNSAP-PRIVATE-IES.&criticality
                                                  ({IEsSetParam}{@id}),
   value
                                            ({IEsSetParam}{@id})
                RNSAP-PRIVATE-IES.&Value
```

END

9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

The following encoding rules apply in addition to what has been specified in X.691 [20]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [20], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term "leading bit" is to be interpreted as equal to the term "first bit" defined in [18].

9.5 Timers

T_{Preempt}

 Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

- 1. Transfer Syntax Error;
- 2. Abstract Syntax Error;
- 3. Logical Error.

Protocol errors can occur in the following functions within a receiving node.

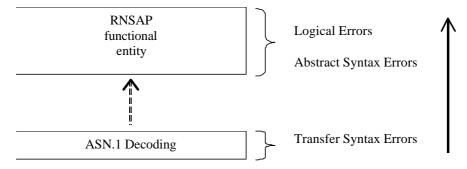


Figure 34: Protocol Errors in RNSAP

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error;
- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error;
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message);
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional RNSAP entity:

- 1. Receives IEs or IE groups that cannot be understood (unknown IE id);
- 2 Receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
- 3 Does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
- 4 Receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
- 5 receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the RNSAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

1. Reject IE;

- 2. Ignore IE and Notify Sender;
- 3. Ignore IE.

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

- 1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by a receiving entity (some may still remain unsupported).
- 2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, RNSAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field f the concerned object of class RNSAP-PROTOCOL-IES, RNSAP-PROTOCOL-IES-PAIR, RNSAP-PROTOCOL-EXTENSION or RNSAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

- 1. Optional;
- 2. Conditional;
- 3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

10.3.4 Not Comprehended IE/IE Group

10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

 If a message is received with a Procedure ID marked with "Ignore IE and Notify Sender" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

Reject IE:

- If a message initiating a procedure is received containing one or more IEs/IE groups marked with "Reject IE" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*, that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.
- If a response message is received containing one or more IEs/IE groups marked with "Ignore IE and Notify Sender" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

Ignore IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "Ignore IE and Notify Sender", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

Ignore IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

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When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the *Message Structure* IE shall be included.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

IEs or IE Groups Received in Wrong Order or With Too Many 10.3.6 Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message initiating a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a response message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

10.4 **Logical Error**

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value. Typical cause values are:

Protocol Causes:

- 1. Semantic Error;
- 2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the

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Transaction ID IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality "ignore and notify" have earlier occurred within the same procedure.

Annex A (normative): Allocation and Pre-emption of Radio Links in the DRNS

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or

- b) a procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:
 - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.
 - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.
 - If all non-excluded transport channels that are intended to use a Radio Link to be established have the pre-emption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
 - If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The Allocation/Retention Priority IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the UE in the DRNS,
- b) a previous procedure adding or modifying the transport channel, or
- c) the current procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

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- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:
 - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.
 - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.
 - If all non-excluded transport channels that are to be added or modified in the Radio Link have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
 - If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note:

The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:
 - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.
 - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".

 If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The DRNS shall establish or modify the resources for a Radio Link according to:

The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio to be established or modified. The Allocation Information is derived according to clause A.1.

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- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the DRNS.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger pre-emption" and the resource situation so requires, the DRNS may trigger the pre-emption process in clause A.4 to free resources for this allocation request.
- -. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the DRNS shall initiate the Radio Link Pre-emption procedure for all the UE Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the DRNS shall reject the procedure that triggered the pre-emption process and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "E vent A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

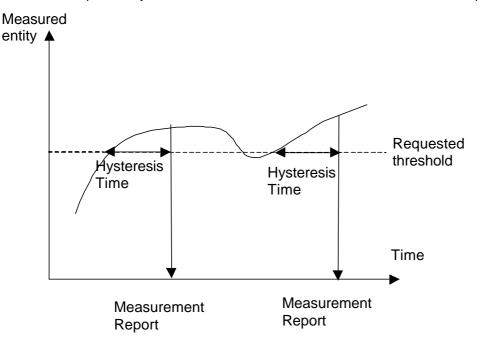


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

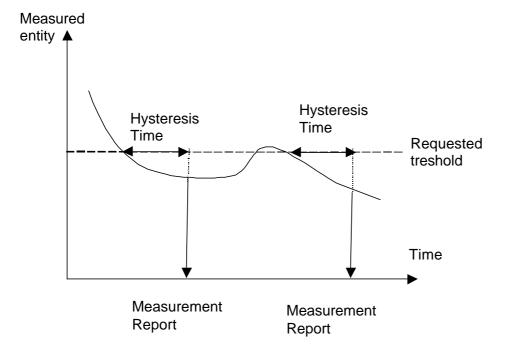


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

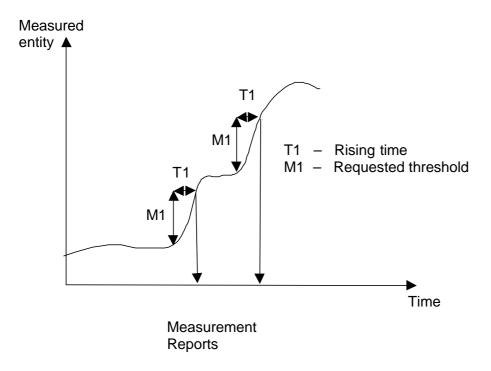


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

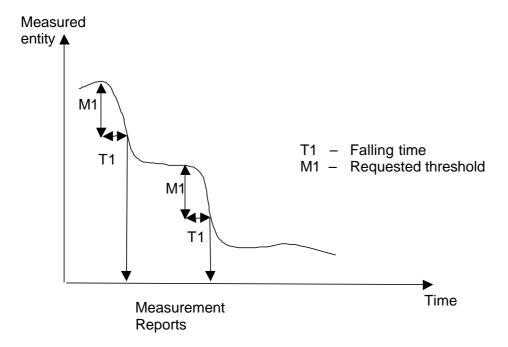


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

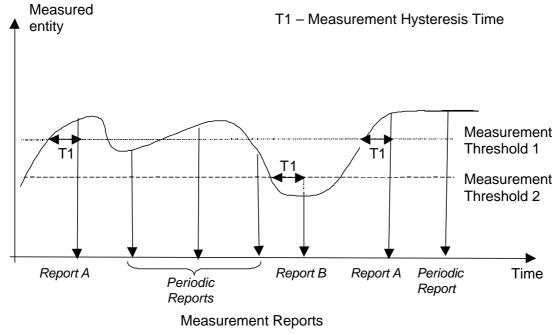
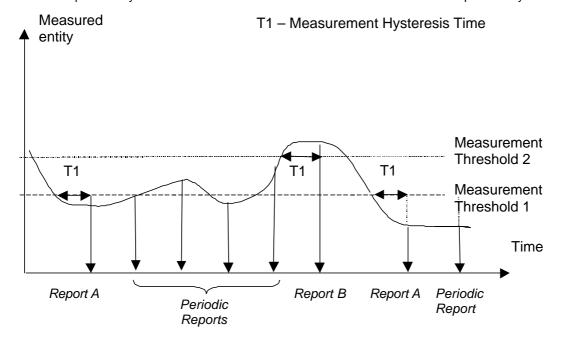


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



Measurement Reports

Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

| IE/Group Name | Presence | Range | IE Type and Referenc e | Semantics Description | Criticality | Assigned Criticality |
|----------------|----------|-----------------|---------------------------------|--------------------------|-------------|-------------------------|
| Message Type | M | | | | YES | reject |
| Transaction ID | M | | | | _ | |
| Α | M | | | | YES | reject |
| В | M | | | | YES | reject |
| >E | | 1 <maxe></maxe> | | | EACH | ignore |
| >>F | | 1 <maxf></maxf> | | | - | |
| >>>G | | 03, | | | EACH | ignore |
| >>H | | 1 <maxh></maxh> | | | EACH | ignore |
| >>>G | | 03, | | | EACH | ignore and notify |
| >>G | М | | | | YES | reject |
| >>J | | 1 <maxj></maxj> | | | - | |
| >>>G | | 03, | | | EACH | reject |
| С | M | | | | YES | reject |
| >K | | 1 <maxk></maxk> | | | EACH | ignore and notify |
| >>L | | 1 <maxl></maxl> | | | - | |
| >>>M | 0 | | | | - | |
| D | M | | | | YES | reject |

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Error! No text of specified style in document.

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

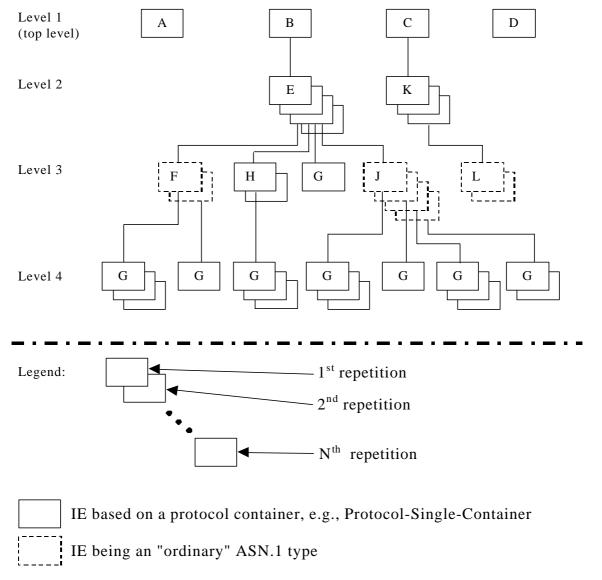
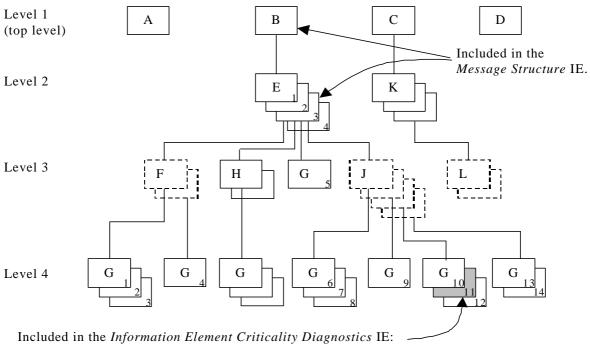


Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1



- a) IE ID IE
- b) Repetition Number IE

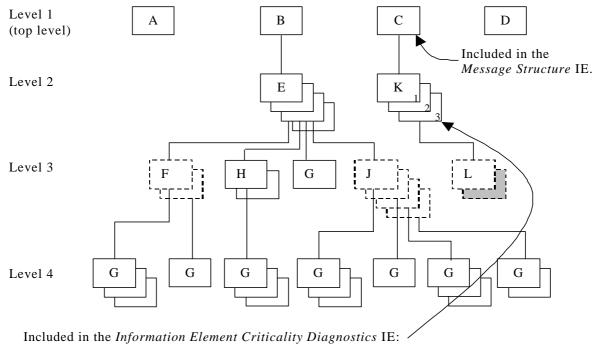
Figure C.2: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|------------------|---------------|--|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 4. |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition | 11 | Repetition number on the reported level, i.e. level 4. |
| Number | | (Since the IE E (level 2) is the lowest level included in the Message Structure IE this is |
| | | the eleventh occurrence of IE G within the IE E (level 2). |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |
| Number | | |

- Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.
- Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2 Example 2



- a) IE ID IE
- b) Repetition Number IE

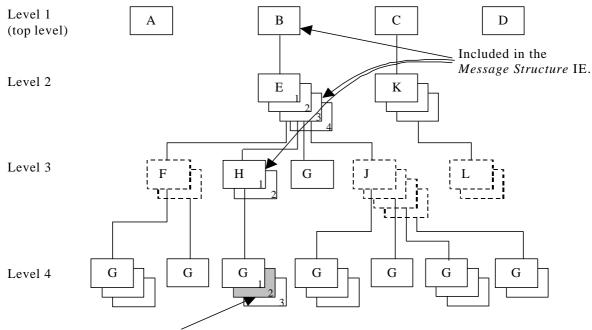
Figure C.3: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|------------------|---------------|---|
| IE Criticality | ignore | Criticality for IE on the reported level, i.e. level 2. |
| | and | |
| | notify | |
| IE ID | id-K | IE ID from the reported level, i.e. level 2. |
| Repetition | 3 | Repetition number on the reported level, i.e. level 2. |
| Number | | |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structur | e, first repe | etition |
| >IE ID | id-C | IE ID from the lowest level above the reported level, i.e. level 1. |

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

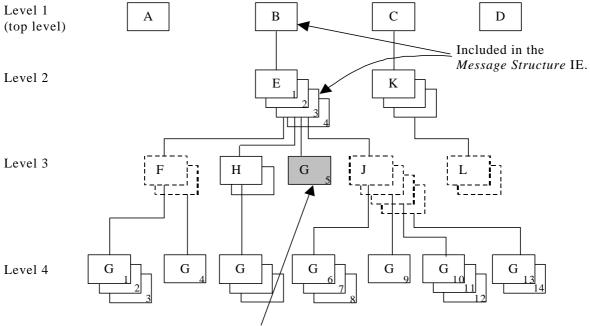
Figure C.4: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|----------------------|---------------|---|
| IE Criticality | ignore | Criticality for IE on the reported level, i.e. level 4. |
| | and notify | |
| IE ID | id-G | IE ID from the reported level, i.e. level 4. |
| Repetition Number | 2 | Repetition number on the reported level, i.e. level 4. |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from level 2. |
| >Repetition | 3 | Repetition number from level 2. |
| Number | | |
| Message Structur | e, third rep | etition |
| >IE ID | id-H | IE ID from the lowest level above the reported level, i.e. level 3. |
| >Repetition | 1 | Repetition number from the lowest level above the reported level, i.e. level 3. |
| Number | | |

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

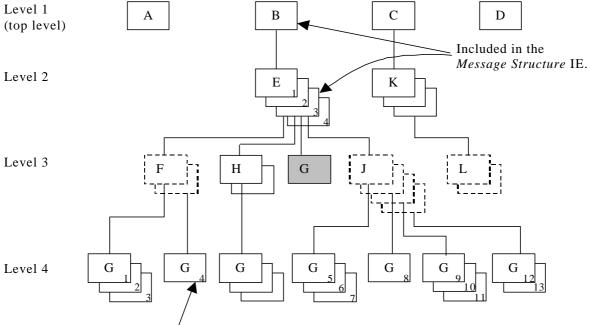
Figure C.5: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|-----------------------|---------------|---|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition | 5 | Repetition number on the reported level, i.e. level 3. |
| Number | | (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE this is the fifth occurrence of IE G within the IE E (level 2). |
| Type of Error | not | |
| | underst | |
| | ood | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition Number | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

Figure C.6: Example of a received RNSAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

| IE name | Value | Comment |
|------------------|---------------|--|
| IE Criticality | reject | Criticality for IE on the reported level, i.e. level 3. |
| IE ID | id-G | IE ID from the reported level, i.e. level 3. |
| Repetition | 4 | Repetition number up to the missing IE on the reported level, i.e. level 3. |
| Number | | (Since the IE E (level 2) is the lowest level included in the Message Structure IE there |
| | | have been four occurrences of IE G within the IE E (level 2) up to the missing |
| | | occurrence. |
| Type of Error | missing | |
| Message Structur | e, first repe | etition |
| >IE ID | id-B | IE ID from level 1. |
| Message Structur | e, second | repetition |
| >IE ID | id-E | IE ID from the lowest level above the reported level, i.e. level 2. |
| >Repetition | 3 | Repetition number from the lowest level above the reported level, i.e. level 2. |
| Number | | |

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
                      ProtocolIE-Container
                                                  {{ExampleMessage-IEs}},
   ProtocolExtensions ProtocolExtensionContainer {{ExampleMessage-Extensions}} OPTIONAL,
ExampleMessage-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-A CRITICALITY reject TYPE A PRESENCE mandatory}
   }
B ::= SEQUENCE {
                   E-List,
   iE-Extensions ProtocolExtensionContainer { {B-ExtIEs} } OPTIONAL,
B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }
E-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-E CRITICALITY ignore TYPE E PRESENCE mandatory }
E ::= SEQUENCE {
                   F-List,
   h
                   H-List,
   q
                   G-List1,
                   J-List,
   iE-Extensions ProtocolExtensionContainer { {E-ExtIEs} } OPTIONAL,
}
E-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
F-List ::= SEQUENCE (SIZE (1..maxF)) OF F
F ::= SEQUENCE {
                  G-List2 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {F-ExtIEs} } OPTIONAL,
          RNSAP-PROTOCOL-EXTENSION ::= {
F-ExtIEs
 \texttt{G-List2} \ ::= \ \texttt{SEQUENCE} \ (\texttt{SIZE} \ (1\dots3, \ \dots)) \ \texttt{OF} \ \texttt{ProtocolIE-Single-Container} \ \big\{ \ \big\{ \texttt{G2-IEs} \big\} \ \big\} 
G2-IES RNSAP-PROTOCOL-IES ::= {
   H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }
H-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-H CRITICALITY ignore TYPE H PRESENCE mandatory }
H ::= SEQUENCE {
                   G-List3 OPTIONAL,
                                  ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
   iE-Extensions
}
H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G3-IEs} }
G3-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory }
G-List1 ::= ProtocolIE-Single-Container { G1-IEs} }
G1-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
                  G-List4 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
}
J-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G4-IEs} }
G4-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
C ::= SEQUENCE {
                   K-List,
   iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL,
C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }
K-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory }
K ::= SEQUENCE {
                   L-List,
   iE-Extensions ProtocolExtensionContainer { {K-ExtIEs} } OPTIONAL,
}
K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
                  M OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {L-ExtIEs} } OPTIONAL,
}
L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
{\tt ExampleMessage-Extensions~RNSAP-PROTOCOL-EXTENSION~::=~\{}
```

Annex D (normative): DRNS Behaviour at SRNC or RNSAP Signalling Bearer Failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE Contexts related to the SRNC need to be removed in DRNC.

D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection Failure

Termination of all or some of the UE Contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

D.1.1 Termination of all UE Contexts Related to a Specific SRNC

Termination of all UE Contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By "all" UE Contexts, it means all UEs having dedicated and/or common channel resources.

D.1.2 Termination of Specific UE Context

Termination of a specific UE Context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

D.2 DRNC Actions at UE Context Termination

When termination of the UE Context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE Context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

Annex E (informative): Change History

| | | | | Change | history |
|------------------|----------------|---|--|----------------|--|
| TSG RAN# | Version | CR | Tdoc RAN | New Version | Subject/Comment |
| RAN_06 | - | - | RP-99755 | 3.0.0 | Approved at TSG RAN #6 and placed under Change Control |
| RAN_07 | 3.0.0 | - | RP-000100 | 3.1.0 | Approved at TSG RAN #7 |
| RAN_07 | 3.0.0 | - | RP-000143 | 3.1.0 | Approved at TSG RAN #7 |
| RAN_07 | 3.0.0 | - | RP-000146 | 3.1.0 | Approved at TSG RAN #7 |
| RAN_08 | 3.1.0 | - | RP-000241 | 3.2.0 | Approved at TSC RAN #8 |
| RAN_08 RAN_08 | 3.1.0 3.1.0 | - | RP-000242 RP-000243 | 3.2.0 3.2.0 | Approved at TSG RAN #8 Approved at TSG RAN #8 |
| RAN_08 | 3.1.0 | - | RP-000243 | 3.2.0 | Approved at TSG RAN #8 Approved at TSG RAN #8 |
| RAN_09 | 3.2.0 | 145- | RP-000379 | 3.3.0 | Approved at 156 RAN #9 |
| | | 149, 151- 154, 156- 164, 166 167 | | | |
| RAN_09 | 3.2.0 | 168 169 171 173 174 176 178- 180 183- 193 | RP-000380 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_09 | 3.2.0 | 194- 200- | RP-000381 | 3.3.0 | Approved at TSG RAN #9 |
| RAN_10 | 3.3.0 | 202- 219, 221- 228, 230, 232- 239, 241, 243- 257, 259, 260, 263- 265, 268- 272, 274- 278, 280, 281 | RP-000618 RP-000619 RP-000621 RP-000696 | 3.4.0 | Approved at TSG RAN #10 |
| RAN_11 | 3.4.0 | 282- 286, 288- 293, 295- 302, 304- 308, 311, 313- 319, 329, 332, 334- 335 | RP-010117 RP-010118 | 3.5.0 | Approved at TSG RAN #11 |

| | | | | | Change history | | |
|--------------------|----------|------------------------|--------------|-----|---|-------|----------------|
| Date | TSG # | TSG Doc. | CR | Rev | Subject/Comment | Old | New |
| March 01 | 11 | RP-010167 | | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| March 01 | 11 | RP-010164 | | | | | 4.0.0 |
| March 01 | 11 | RP-010159 | 327, 328, | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| | | | 336, | | | | |
| | | | 337 | | | | |
| March 01 | 11 | RP-010160 | | | Approved at TSG RAN #11 and placed under Change Control | - | 4.0.0 |
| | | | 323, | | | | |
| 06/2001 | 12 | RP-010378 | 339 341, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 |
| 00/2001 | 12 | 1010376 | 343. | | Approved at 130 IVAIN#12 | 4.0.0 | 4.1.0 |
| | | | 345, | | | | |
| | | | 347, | | | | |
| | | | 349, 351, | | | | |
| | | | 353, | | | | |
| | | | 355, | | | | |
| | | | 357, | | | | |
| 00/0004 | 12 | RP-010379 | 359 | | Accessed at TCC DANIHAO | 100 | 110 |
| 06/2001 | 12 | RP-010379 | 361, 363, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 |
| | | | 365, | | | | |
| | | | 367, | | | | |
| | | | 369, | | | | |
| | | | 378, 380, | | | | |
| | | | 382, | | | | |
| | | | 388, | | | | |
| | | | 390 | | | | |
| 06/2001 | 12 | RP-010380 | 399, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 |
| | | | 403, 405, | | | | |
| | | | 407, | | | | |
| | | | 409, | | | | |
| | | | 411, | | | | |
| 06/2001 | 12 | RP-010394 | 414 372, | | Approved at TSG RAN#12 | 4.0.0 | 4.1.0 |
| 00/2001 | 12 | 141 010004 | 373, | | 7. 100 10 10 10 10 10 10 10 10 10 10 10 10 | 4.0.0 | 7.1.0 |
| | | | 374, | | | | |
| | | | 375, | | | | |
| | | | 376, 379, | | | | |
| | | | 380, | | | | |
| | | | 391, | | | | |
| | | | 393, | | | | |
| 09/2001 | 13 | RP-010583 | 412 371 | 2 | Ambiguity in CM handling | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010583 | - | 1 | Corrections to the DSCH Code Mapping IE | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010583 | | | Transport bearer replacement clarification | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | | | | Correction to the Error handling of the ERROR INDICATION | 4.1.0 | 4.2.0 |
| | | RP-010583 | | 1 | message | | |
| 09/2001 | 13 | RP-010583 | | 2 | Cell Reserved for operator use | 4.1.0 | 4.2.0 |
| 09/2001 09/2001 | 13 13 | RP-010583 RP-010583 | | 1 | Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD | 4.1.0 | 4.2.0 4.2.0 |
| 09/2001 | 13 | RP-010583 | | 1 | Correction of a wrong implementation of CR 414 | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010583 | | 1 | Error handling of the Erroneously Present Conditional les | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010583 | | 1 | Correction to Downlink Signaling Transfer | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010584 | | | Bitstrings ordering | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010584 | | | Mapping of TFCS to TFCI | 4.1.0 | 4.2.0 |
| 09/2001 | 13 13 | RP-010584 | | 2 | TDD Channelisation code range definition Clarification of coordinated DCHs | 4.1.0 | 4.2.0 |
| 09/2001 09/2001 | 13 | RP-010584 RP-010584 | | 2 | Clarification of coordinated DCHS Clarification on the Time Slot LCR | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010584 | | 1 | Rnsap criticality | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010584 | | 1 | Clarification of chapter 10 | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010584 | | 1 | Clarification of use of Diversity Control Indicator | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | | | | Clarification on the reference of the "Neighbouring TDD Cell | 4.1.0 | 4.2.0 |
| 00/0004 | 40 | RP-010596 | 415 | | Information LCR" | 440 | 400 |
| 09/2001 | 13 | DD 010500 | 420 | 2 | Allowed Combinations of Dedicated Measurement Type and the Reporting Characteristics Type | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010596 RP-010596 | | | Support of 8PSK modulation for LCR TDD | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010596 | | | Allowed combination of the measurement and event types | 4.1.0 | 4.2.0 |
| 09/2001 | 13 | RP-010596 | | 1 | Adding protocol container in CHOICE type IE | 4.1.0 | 4.2.0 |
| | | | | | | | |

| 00/0004 | 40 | DD 040500 | 100 | l a | 0 - 17 - 17 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 440 | 1400 |
|--------------------|----------|------------------------|------|-----|--|----------------|-------|
| 09/2001 09/2001 | 13 13 | RP-010596 RP-010596 | | 1 | Clarification of Abnormal Conditions/Unsuccessful Operation Correct ion to position reporting | 4.1.0 4.1.0 | 4.2.0 |
| 09/2001 | 13 | KF-010596 | 400 | I | CR to 25.423 v4.1.0: RX timing deviation as dedicated | 4.1.0 | 4.2.0 |
| 03/2001 | 10 | RP-010596 | 461 | 1 | measurement for 1.28Mcps TDD | 4.1.0 | 7.2.0 |
| 12/2001 | 14 | RP-010896 | | 2 | CR on Priority range | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | 480 | | Bitstrings ordering | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | | | | Added UTRAN modes in the Semantics Description in IEs in | 4.2.0 | 4.3.0 |
| | | RP-010855 | 482 | | RNSAP messages | | |
| 12/2001 | 14 | DD 040055 | 40.4 | | Alignment to RAN4 spec for Transmitted Code Power | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 RP-010855 | | | Measurement Transmit Diversity for TDD | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | | Clarification for the definition of the ASN.1 constants | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | 1 | Terminology Corrections | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010855 | | - | Procedure Code Criticality in Error Indication | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | | | | Clarification for the Power Adjustment Type IE in the DL POWER | 4.2.0 | 4.3.0 |
| | | RP-010855 | | | CONTROL REQUEST message | | |
| 12/2001 | 14 | RP-010855 | | 1 | Forward Compatibility for DL Power Balancing | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | | Reconfiguration clarification | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | 2 | DRNC behaviour at SRNC or RNSAP Signalling Bearer failure | 4.2.0 | 4.3.0 |
| 12/2001 12/2001 | 14 14 | RP-010856 RP-010856 | | 2 | Addition of amendment to clarify the PER encoding of bitstrings Clarification on Primary CPICH Ec/No IE | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | 2 | Transport Bearer replacement clarification for the DSCH case | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | _ | Clarification of the Transaction ID | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | | Clarification of S Field Length usage | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | | | Correction the Clause 10 Error Handling | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010856 | 540 | | Correction to Primary CPICH handling in RL Setup procedure | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 1 | Correction of drift rate resolution | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | 487 | | Cell Parameter ID IE definition for 1.28Mcps TDD | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | DD 040070 | 400 | | Introduction of Band Indicator in GSM Neighbouring Cell | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 RP-010873 | | | Information UL SIR Target in RL Setup Request TDD | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 2 | Handling of the DPC Mode IE | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 1 | Rel-4 specific terminology corrections | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 1 | Correction to the RNSAP Congestion Indication | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | RP-010873 | | 2 | SFN-SFN quality indication | 4.2.0 | 4.3.0 |
| 12/2001 | 14 | | | | Correction to SFN-SFN Observed Time Difference Measurement | 4.2.0 | 4.3.0 |
| | | RP-010911 | | 1 | report mapping | | |
| 03/2002 | 15 | RP-020169 | | 3 | RNSAP signalling support for flexible split | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020169 | | 1 | Setting of Initial power in a new CCTrCH in TDD | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020169 | | 0 | Clarification to measurement unit at Higher Layer Filtering. | 4.3.0 | 4.4.0 |
| 03/2002 | 15 15 | RP-020169 RP-020169 | | 2 | New UE identifier for MAC-c/sh multiplexing for DSCH Correction to physical channels which SCTD can be applied (lur) | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | | 1 | Corrections to the Information Exchange Initiation procedure | 4.3.0 | 4.4.0 |
| 00/2002 | 10 | 020101 | 0.0 | ļ · | Consider to the information Exchange initiation procedure | 1.0.0 | 1 |
| 03/2002 | 15 | RP-020181 | 546 | 1 | Correction to UE position measurements quality and threshold | 4.3.0 | 4.4.0 |
| 00/0000 | 4= | DD 000404 | | | information | | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 547 | 1 | Correction to UE position measurements change and deviation limit formulas | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 552 | | Re-ordering of cause values | 4.3.0 | 4.4.0 |
| | | | | | • | | |
| 03/2002 | 15 | RP-020181 | 561 | | Clarification to the Allowed Rate Information in RL Setup/Addition/Reconfiguration response and RL Reconfiguration | 4.3.0 | 4.4.0 |
| | | | | | Ready messages. | | |
| 03/2002 | 15 | RP-020181 | 562 | 1 | Modification of the T_utran-gps length | 4.3.0 | 4.4.0 |
| | | | | | | | |
| 03/2002 | 15 | RP-020181 | 567 | | Amendment of the COMMON MEASUREMENT INITIATION REQUEST message | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 576 | 2 | Load Value Extension | 4.3.0 | 4.4.0 |
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| 03/2002 | 15 | RP-020181 | 588 | | The correction on duplicated allocatioin of protocolIE-ID | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 589 | | Enhanced DSCH and syntax error ASN.1 correction | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020181 | 596 | 1 | Introduction of ellipses for IPDL parameters | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | RP-020231 | 586 | 2 | Removing of channel coding option "no coding" for FDD | 4.3.0 | 4.4.0 |
| 03/2002 | 15 | 020201 | 300 | - | Power Balancing Activation with Radio Link Setup and Radio Link | 4.4.0 | 5.0.0 |
| | | RP-020188 | 433 | 4 | Addition procedures in RNSAP | | |
| 03/2002 | 15 | | | | Power Balancing Restart with Radio Link Reconfiguration | 4.4.0 | 5.0.0 |
| | | RP-020188 | | 3 | procedure in RNSAP | | |
| 03/2002 | 15 | RP-020188 | | 2 | Traffic class signalling over lur | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020188 | | 2 | Alignment to RAN4 specifications for CPICH Ec/No | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020194 | 543 | 2 | RNSAP Signalling support for flexible hard split | 4.4.0 | 5.0.0 |
| 03/2002 | 15 | RP-020193 | 5// | 2 | Add IPDL TDD parameters for LCR in RNSAP information element functional definition and contents | 4.4.0 | 5.0.0 |
| | | KF-020193 | J44 | _ | ranctional definition and contents | l | 1 |

| 03/2002 1 03/2002 1 03/2002 1 03/2002 1 | 15 15 15 15 15 | RP-020192 RP-020189 RP-020197 RP-020188 RP-020199 | 555 556 558 | 1 2 1 | Introduction of cell capability container over Iur Introduction of IP Transport option in UTRAN Iur Common Transport Channel Efficiency Optimisation | 4.4.0 4.4.0 4.4.0 | 5.0.0 5.0.0 5.0.0 |
|---|----------------------------|---|-------------------|-------|--|-------------------------|-------------------------|
| 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 | 15 15 15 15 | RP-020197 RP-020188 | 556 558 | | Iur Common Transport Channel Efficiency Optimisation | | |
| 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 | 15 15 15 | RP-020188 | 558 | 1 | | 4.4.0 | 5.0.0 |
| 03/2002 1 03/2002 1 03/2002 1 03/2002 1 03/2002 1 | 15 15 | | | | | | |
| 03/2002 1 03/2002 1 03/2002 1 03/2002 1 | 15 | RP-020199 | | 0 | RNSAP Reset procedure | 4.4.0 | 5.0.0 |
| 03/2002 1 03/2002 1 03/2002 1 | _ | | | 2 | Separation of Resource Reservation and Radio Link Activation | 4.4.0 | 5.0.0 |
| 03/2002 1 03/2002 1 | 1.5 | RP-020196 | 564 | | Introduction of RL Timing Adjustment support | 4.4.0 | 5.0.0 |
| 03/2002 1 | 15 | RP-020193 | 560 | 1 | Introduction of the Neighbouring TDD Cell Measurement Information LCR | 4.4.0 | 5.0.0 |
| 03/2002 1 | 15 | RP-020193 | | 1 | Uplink SIR Target in RL Setup Response TDD | 4.4.0 | 5.0.0 |
| | | RP-020190 | | 3 | HSDPA RL-Level Signalling | 4.4.0 | 5.0.0 |
| 03/2002 | | KF-020190 | 370 | 3 | Introduction of Angle of Arrival enhanced UE positioning for | 4.4.0 | 5.0.0 |
| ' | 13 | RP-020193 | 571 | 1 | 1.28Mcps TDD in RNSAP | 4.4.0 | 3.0.0 |
| 03/2002 1 | 15 | RP-020188 | | 2 | Traffic class signalling for USCH | 4.4.0 | 5.0.0 |
| | 15 | 111 020100 | 0.2 | _ | New Measurement Type in Common Measurements and | 4.4.0 | 5.0.0 |
| | | RP-020188 | 577 | 4 | Information Exchange | | 0.0.0 |
| 03/2002 1 | 15 | RP-020194 | | 3 | RNSAP changes for TFCI power control in DSCH hard split mode | 4.4.0 | 5.0.0 |
| | 15 | RP-020188 | | 1 | Introduction of the cell relation parameters | 4.4.0 | 5.0.0 |
| | 16 | RP-020426 | | 4 | Introduction of Qth signalling in UTRAN | 5.0.0 | 5.1.0 |
| | 16 | RP-020406 | | | Criticality Information Decoding Failure Handling | 5.0.0 | 5.1.0 |
| | 16 | RP-020406 | | 1 | Alignment of tabular and ASN.1 coding for DL power | 5.0.0 | 5.1.0 |
| | 16 | RP-020406 | | 1 | Correction to RL Restore Indication | 5.0.0 | 5.1.0 |
| | 16 | 020.00 | - | • | New UE identifier for Shared Channel handling for TDD | 5.0.0 | 5.1.0 |
| | | RP-020406 | 611 | | DSCH/USCH | | |
| 06/2002 1 | 16 | RP-020406 | | 1 | Clarification of Cell individual offset | 5.0.0 | 5.1.0 |
| | 16 | RP-020419 | 618 | | Clarification on the Neighboring TDD Cell Measurement information | 5.0.0 | 5.1.0 |
| | 16 | RP-020422 | | | HS_DSCH Support Indicator in FDD Cell Capability Container | 5.0.0 | 5.1.0 |
| | 16 | RP-020432 | | | Removal of syntax errors from ASN.1 | 5.0.0 | 5.1.0 |
| | 16 | RP-020422 | | | Interaction between HSDPA and IP transport in UTRAN | 5.0.0 | 5.1.0 |
| | 16 | RP-020428 | | | RNSAP changes for TFCI power control in DSCH hard split mode | 5.0.0 | 5.1.0 |
| | 16 | | | | Correction to the use of the CFN IE / SFN IE in the Measurement | 5.0.0 | 5.1.0 |
| | | RP-020406 | 626 | 1 | Initiation procedures | | |
| 06/2002 1 | 16 | RP-020406 | | | TFCI 0 definition for TDD | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020406 | 635 | 1 | CELL DCH to CELL FACH TDD correction | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020407 | 641 | 1 | DSCH Information Correction | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | | | | Definition of quality figures for SFN-SFN and Tutran-gps | 5.0.0 | 5.1.0 |
| | | RP-020419 | 648 | | measurement value information | | |
| 06/2002 1 | 16 | RP-020407 | 656 | 1 | Clarification for the usage of the cause value | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020422 | 662 | 2 | HS-DSCH Initial credits | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020419 | 663 | 1 | Clarification to the RNSAP RL Congestion procedure | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020432 | 664 | 1 | DSCH Support Indicator in Cell Capability Container | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020407 | 673 | | RNSAP Tabular alignment to ASN1 and other corrections | 5.0.0 | 5.1.0 |
| 06/2002 1 | 16 | RP-020447 | 669 | 2 | Support of lur-g procedures (implemented after PCG endorsement) | 5.1.0 | 5.2.0 |
| 09/2002 1 | 17 | RP-020607 | 675 | | Correction of Criticality of RL set information in Dedicated | 5.2.0 | 5.3.0 |
| | | | | | Measurement initiation | | |
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| 09/2002 1 | 17 | RP-020614 | 677 | 1 | Rx Timing Deviation (TDD) corrections | 5.2.0 | 5.3.0 |
| | | | | | | | |
| 09/2002 1 | 17 | RP-020616 | 679 | 1 | Clarification of the Common Measurement Reporting procedure | 5.2.0 | 5.3.0 |
| | | | | | | | |
| 09/2002 1 | 17 | RP-020607 | 681 | | Clarification to DCH Rate Control for modified DCHs | 5.2.0 | 5.3.0 |
| 00/0000 | | DD 000040 | 000 | • | 001 - 1 400/4140/7 B 655 (1 B 055 1 I | 500 | 500 |
| 09/2002 1 | 17 | RP-020648 | 682 | 3 | CQI and ACK/NACK Repetition factor and Power Offset and k- | 5.2.0 | 5.3.0 |
| | | | | | value | | |
| 09/2002 1 | 17 | RP-020622 | 683 | | Change of Maximum Number of HS-SCCH Codes | 5.2.0 | 5.3.0 |
| 09/2002 | '' | KF -020022 | 003 | | Change of Maximum Number of 113-30011 Codes | 5.2.0 | 5.5.0 |
| 09/2002 1 | 17 | RP-020652 | 684 | 2 | Required enhancements due to GERAN specific impacts on the lu- | 5.2.0 | 5.3.0 |
| 03/2002 | ' | 111 020002 | 004 | _ | cs interface | 0.2.0 | 0.0.0 |
| | | | | | | | |
| 09/2002 1 | 17 | RP-020618 | 685 | | Clarification for the initial power of the power balancing (Pinit) | 5.2.0 | 5.3.0 |
| | | | | | J | | |
| 09/2002 1 | 17 | RP-020651 | 686 | 2 | Partial dedicated measurement reporting | 5.2.0 | 5.3.0 |
| | | | | | | | |
| | 17 | RP-020646 | 687 | 1 | DSCH Initial Credits | 5.2.0 | 5.3.0 |
| 09/2002 1 | | | | | | <u></u> | |
| 09/2002 1 | 17 | RP-020619 | 688 | | Removal of BLER for HS-DSCH | 5.2.0 | 5.3.0 |
| | | | | | | | |
| 09/2002 1 | | | | | Correction for inconsistency in length of TFCI field 2 | 5.2.0 | 5.3.0 |
| 09/2002 1 | 17 | RP-020617 | 689 | 1 | Correction for inconsistency in length of 11 of field 2 | | 0.0.0 |
| 09/2002 1 09/2002 1 | | | | 1 | · | | |
| 09/2002 1 09/2002 1 | 17 | RP-020617 RP-020612 | | 1 | WG4 Reference Corrections | 5.2.0 | 5.3.0 |
| 09/2002 1 09/2002 1 09/2002 1 | | | 691 | 2 | · | | |

| 09/2002 | 17 | RP-020607 | 696 | 2 | Handling of Common measurement of neighbor cell information elements | 5.2.0 | 5.3.0 |
|---------|----|-----------|-----|---|--|-------|-------|
| 09/2002 | 17 | RP-020589 | 700 | 1 | Replacing all occurences of P _{SIR} (k) by dP _{curr} in 25.423 | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020623 | 701 | 1 | RL Parameter Update Procedure | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020625 | 702 | 1 | Introduction of Shared Network Area information support | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020603 | 705 | 2 | Correction of the Error Indication | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020613 | 707 | 2 | Uplink Synchronisation in 1.28Mcps TDD | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020628 | 714 | | Traffic Class for HS-DSCH | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020607 | 716 | 1 | Clarification of the DCH rate coding | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020649 | 717 | 1 | HS-SCCH Power offset | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020603 | 720 | 1 | Correction to Compressed Mode in RL Addition Failure | 5.2.0 | 5.3.0 |
| 09/2002 | 17 | RP-020615 | 722 | | Quality les for UE positioning measurements | 5.2.0 | 5.3.0 |

| 40/0000 | 140 | DD 000750 | 704 | ı | Add III. CID. 4 | I - 0 0 | 15.40 |
|---------|-----|------------------------|-----|---|--|---------|-------|
| 12/2002 | 18 | RP-020758 | 724 | | Add UL SIR_target for Unsynchronized RL Reconfiguration in 1.28Mcps TDD | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020757 | 726 | | Correction to RX Timing Deviation LCR value range | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020759 | | 2 | Slot Format for 1.28Mcps TDD | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020762 | | 1 | MAC-hs Reset Indicator | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020773 | | 1 | Measurement power offset signalling for HSDPA | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020768 | | | Power offset values for HS-DPCCH | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020762 | | | Correction on the Cell Capacity Class | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020762 | | | Rel-5 ASN.1 Error correction | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020753 | | 2 | Final Corrections from RNSAP Procedure Review | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020767 | 742 | 1 | Addition of the second TDD Channelisation Code of HS-SCCH for the 1.28Mcps TDD option. | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020765 | | 1 | Clarfication of the usage of HS-DSCH-RNTI | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020766 | 753 | | Clarification for the inclusion of the DL Power Balancing Updated Indicator IE | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020744 | 756 | | Correction for the DL DPDCH transmission | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020855 | 757 | 3 | MAC-hs Window Size | 5.3.0 | 5.4.0 |
| 12/2002 | 18 | RP-020743 | 763 | 1 | DSCH-RNTI in RADIO LINK SETUP FAILURE | 5.3.0 | 5.4.0 |
| 03/2003 | 19 | RP-030068 | 767 | | Clarification to DL Power definition for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030077 | 768 | 2 | Correction to DL Tx Power for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030072 | 770 | 1 | TPC Step Size for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030069 | | | Clarification to 2nd Interleaving Mode for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030078 | 773 | 1 | HS-PDSCH RNSAP Corrections for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030073 | 775 | 1 | Clarification of HS-SCCH power offset usage in case of multiple HS-SCCHs | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030062 | 778 | | Correction of Guaranteed DL Rate | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030062 | | 1 | Correction of the TDD UE capabilities necessary to pass from SRNC to CRNC | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030080 | 781 | 1 | Measurement for HS-SICH Outer Loop Power Control | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030082 | | 1 | Corrections to Channelisation Code TFCI Mapping for TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030070 | | | Correction for the Information Exchange Initiation procedure | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030074 | | 1 | T1 signalling for HSDPA | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030183 | | 5 | Support of Cell Individual Offset in RNSAP | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030071 | | • | Midamble Configuration for Midamble Shift LCR | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030067 | 796 | | Alignment of "Uncertainty Ellipse" with RRC | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030058 | | 2 | Uplink Timing Advance Control Parameters in LCR TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030119 | | 1 | Signalling of Midamble Shift and Burst type for HS-PDSCH in TDD | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030066 | | - | Corrections to DCH Combining in RL SETUP and RL ADDITION | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030058 | 809 | | Correction on CGA Additional Shapes | 5.4.0 | 5.5.0 |
| 03/2003 | 19 | RP-030076 | 810 | 2 | Guaranteed Bit Rate for HSDPA | 5.4.0 | 5.5.0 |
| 06/2003 | 20 | RP-030332 | 815 | | Alignment of TDD HSDPA parameters to RAN2 and RAN 1. | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030333 | 816 | | HSDPA General Corrections | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030358 | 820 | 3 | Group reset | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030334 | | | TDD Channelisation Code LCR correction for HSDPA | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030319 | 822 | | Correction of the figure of the Information Exchange Failure procedure | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030324 | 824 | 1 | Alignment of the Requested Data Value Information IE description | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030325 | | | GPS trigger condition | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030319 | | | Alignment of tables in Information Exchange Initiation procedure description | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030329 | 832 | 2 | HS-SCCH Change Indicator | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030335 | | _ | Correction to HARQ Memory Partitioning | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030337 | | | Correction for the value range of "CQI Feedback cycle, k" | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030279 | | 2 | Clarification for the handling of the HS-DSCH | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030328 | | 2 | Resource handling of HS-DSCH Guaranteed Bit Rate | 5.5.0 | 5.6.0 |
| 06/2003 | 20 | RP-030326 | | | Correction of Failure message used for logical errors | 5.5.0 | 5.6.0 |
| 09/2003 | 21 | RP-030451 | | 2 | Discard timer signalling for HSDPA | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030452 | | 1 | Phase Reference Signalling Support | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030449 | | 2 | HS-DSCH Priority Queue to Modify | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030536 | | 2 | MAC-hs Reordering Buffer Size | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030443 | | | Corrections to Tx Diversity | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030440 | | 1 | Correction of the Measurement Increase/Decrease Threshold IE | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030444 | | | "On Modification" and "Periodic" reporting alignment for Information Exchange procedures | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030445 | 857 | | Alignment of title and sub-clause text of chapter 10.3.4.2 | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030440 | | | Corrections on Uplink Signalling Transfer | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030440 RP-030447 | | 2 | Coordination with RRC about the TFS of DL DCH for HS-DSCH | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030447 | | 1 | HS-DSCH information usage description clarification | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030440 | | 1 | RNSAP correction for CRRM alignment | 5.6.0 | 5.7.0 |
| 09/2003 | 21 | RP-030446 | | | Removal of the note in chapter 10 | 5.6.0 | 5.7.0 |
| U3/20U3 | 41 | 111 -030440 | OOO | | Incinoval of the hote in chapter to | 5.0.0 | J.1.U |