

CHANGE REQUEST

⌘ **25.423 CR 903** ⌘ rev **1** ⌘ Current version: **6.0.0** ⌘

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Introduction of UE measurement forwarding over the lur for TDD		
Source:	⌘ RAN3		
Work item code:	⌘ RANimp-RRMopt-UEMsD	Date:	⌘ 16/02/2004
Category:	⌘ B	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	⌘ As a result of the Feasibility Study for improved access to User Equipment (UE) measurement data for Controlling Radio Network Controller (CRNC) to support Time Division Duplex (TDD) Radio Resource Management (RRM) and the work item of the same name, it was determined that the CRNC can benefit significantly if its gets more UE measurement information forwarded from the SRNC.
Summary of change:	⌘ Four new procedures modeled closely to the existing Dedicated Measurement procedures are introduced. For UE Measurement Initiation, UE Measurement Reporting, UE Measurement Failure and UE Measurement Termination.
Consequences if not approved:	⌘ The improvement that was shown in the study item that is achieved if the CRNC has access to UE measurements will not be seen.

Clauses affected:	⌘ 4, 7, 8.1, 9.2.1.5, 9.2.1.37, 9.2.1.40, 9.3.2, 9.3.3, 9.3.4, 9.3.6						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
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X							
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Other comments:	⌘ The Primary CCPCH RSCP Delta IE is also defined in an identical way in CR 933/934. Numbering for new sections						

8.3.x1 = 8.3.22, 8.3.x2 = 8.3.23, 8.3.x3 = 8.3.24, 8.3.x4 = 8.3.25,.

Figure f1=26F, f2=26G, f3=26H, f4=26I, f5=26J

9.1.z1 = 9.1.59, 9.1.z2 = 9.1.60, 9.1.z3 = 9.1.61, 9.1.z4 = 9.1.62, 9.1.z5 = 9.1.63, 9.1.z6 = 9.1.64, 9.1.z7 = 9.1.65

9.2.3.X = 9.2.3.5a

9.2.3.y0=9.2.3.13Fa 9.2.3.y1=9.2.3.13Fb, 9.2.3.y2=9.2.3.13Fc, 9.2.3.y3=9.2.3.13Fd,
9.2.3.y4=9.2.3.13Fe, 9.2.3.y5=9.2.3.13Ff, 9.2.3.y6=9.2.3.13Fg, 9.2.3.y7=9.2.3.13Fh,
9.2.3.y8=9.2.3.13Fi, 9.2.3.y9=9.2.3.13Fj

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:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 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.

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, [TDD – the UE Measurement Initiation, the UE Measurement Reporting, UE Measurement Termination, UE Measurement Failure] and the 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".

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.
- [UE Measurement Forwarding\[TDD\]. This function allows the DRNC to request and receive UE measurements from the SRNC.](#)

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 j) 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 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 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 Management	a) Common Transport Channel Resources 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
UE Measurement Forwarding [TDD]	a) UE Measurement Initiation b) UE Measurement Reporting c) UE Measurement Termination d) UE Measurement Failure

7.1 RNSAP functions and elementary procedures for Iur-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 Iur-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 related 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 Procedure	Initiating Message	Successful Outcome	Unsuccessful Outcome
		Response message	Response message
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE	
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE
Physical Channel Reconfiguration	PHYSICAL CHANNEL RECONFIGURATION REQUEST	PHYSICAL CHANNEL RECONFIGURATION COMMAND	PHYSICAL CHANNEL RECONFIGURATION FAILURE
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE
Common Transport Channel Resources Initialisation	COMMON TRANSPORT CHANNEL RESOURCES REQUEST	COMMON TRANSPORT CHANNEL RESOURCES RESPONSE	COMMON TRANSPORT CHANNEL RESOURCES FAILURE
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE
Information Exchange Initiation	INFORMATION EXCHANGE INITIATION REQUEST	INFORMATION EXCHANGE INITIATION RESPONSE	INFORMATION EXCHANGE INITIATION FAILURE
Reset	RESET REQUEST	RESET RESPONSE	
UE Measurement Initiation[TDD]	UE MEASUREMENT INITIATION REQUEST	UE MEASUREMENT INITIATION RESPONSE	UE MEASUREMENT INITIATION FAILURE

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 Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCEL
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT
Dedicated Measurement Termination	DEDICATED MEASUREMENT 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 Resources Release	COMMON TRANSPORT CHANNEL 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 INDICATION
Common Measurement Reporting	COMMON MEASUREMENT REPORT
Common Measurement Termination	COMMON MEASUREMENT 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
UE Measurement Reporting [TDD]	UE MEASUREMENT REPORT
UE Measurement Termination [TDD]	UE MEASUREMENT TERMINATION REQUEST
UE Measurement Failure [TDD]	UE MEASUREMENT FAILURE INDICATION

8.3.x1 UE Measurement Initiation [TDD]

8.3.x1.1 General

This procedure is used by a DRNC to request the initiation of UE measurements by the SRNC.

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

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

8.3.x1.2 Successful Operation

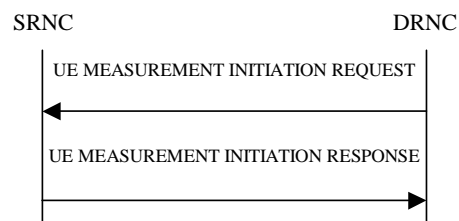


Figure f1: UE Measurement Initiation procedure, Successful Operation

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

Upon receipt the SRNC shall, provided that it determines that the measurement can be performed by the UE, initiate and forward the requested UE measurement according to the parameters given in the UE MEASUREMENT INITIATION REQUEST message. If the UE MEASUREMENT INITIATION REQUEST message includes the *UE Measurement Parameter Modification Allowed IE* with a value of "Parameter Modification Allowed" the *UE Measurement Report Characteristics IE* and the *Measurement Filter Coefficient IE*, if it is included, are suggested values, otherwise the values of these parameters must be fulfilled.

[3.84 Mcps TDD - If the *UE Measurement Timeslot Information HCR IE* is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information HCR IE* are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

[1.28 Mcps TDD - If the *UE Measurement Timeslot Information LCR IE* is provided, the measurement request shall apply for the requested timeslot(s) individually. If the *UE Measurement Timeslot Information LCR IE* are not provided the SRNC may choose the timeslots for measurements that apply to individual timeslots.]

If the UE MEASUREMENT INITIATION REQUEST message includes the *Allowed Queuing Time IE* the SRNC 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.

The SRNC is required to perform reporting for a UE measurement object, in accordance with the conditions provided in the UE MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no UE measurement object(s) for which a measurement is defined exists any more, the SRNC shall terminate the measurement locally without reporting this to the DRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event 1h, Event 1i, Event 6a, Event 6b, Event 6c, or Event 6d, the SRNC shall initiate the UE Measurement Reporting procedure immediately, and then continue with the measurements as specified in the UE MEASUREMENT INITIATION REQUEST message

At the start of a periodic measurement, the SRNC shall not initiate UE Measurement Reporting procedure until the next measurement is received from the UE, even if measurement data is available.

Report characteristics

The *UE Measurement Report Characteristics* IE indicates how the reporting of the dedicated measurement shall be performed. See [16].

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.. If the *Measurement Filter Coefficient* IE is not present, *a* shall be set to 1 (no filtering). The use of the *Measurement Filter Coefficient* IE is shown in [16].

Response message

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

If the DRNC allowed parameter modification and the SRNC modified the *Measurement Filter Coefficient* IE the SRNC shall include the modified value in the UE MEASUREMENT INITIATION RESPONSE message.

If the DRNC allowed parameter modification and the SRNC modified the *UE Measurement Report Characteristics* IE the SRNC shall include the modified value in the UE MEASUREMENT INITIATION RESPONSE message.

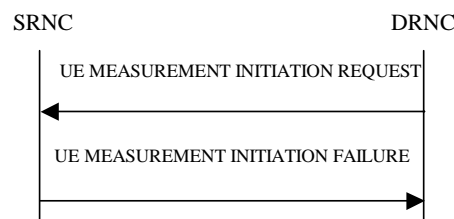
8.3.x1.3 Unsuccessful Operation

Figure f2: UE Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the SRNC shall send a UE MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the UE MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are:

Radio Network Layer Causes:

- Measurement not Supported For The Object
- Measurement Temporarily not Available
- Measurement Repetition Rate not Compatible with Current Measurements
- UE not Capable to Implement Measurement

Miscellaneous Causes:

- Control Processing Overload
- HW Failure

8.3.x1.4 Abnormal Conditions

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8.3.x2 UE Measurement Reporting [TDD]

8.3.x2.1 General

This procedure is used by the SRNC to report the results of the successfully initiated measurements requested by the DRNC with the UE Measurement Initiation procedure.

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

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

8.3.x2.2 Successful Operation



Figure f3: UE Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria was met in the UE and reported to the SRNC, the SRNC shall initiate the UE Measurement Reporting procedure. The *Measurement ID IE* shall be set to the Measurement ID provided by the DRNC when initiating the measurement with the UE Measurement Initiation procedure.

If Primary CCPCH RSCP is being reported:

- If the *Primary CCPCH RSCP Delta IE* is included, the DRNC shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta IE*.
- If the *Primary CCPCH RSCP Delta IE* is not included the DRNC shall assume that the reported value is in the non negative range as per [24], and the value is equal to the *Primary CCPCH RSCP IE*

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [24], the Measurement not available shall be reported in the *UE Measurement Value Information IE* in the UE MEASUREMENT REPORT message, otherwise the SRNC shall include the *UE Measurement Value IE* within the *UE Measurement Value Information IE*.

8.3.x2.3 Abnormal Conditions

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8.3.x3 UE Measurement Termination [TDD]

8.3.x3.1 General

This procedure is used by the DRNC to terminate a measurement previously requested by the UE Measurement Initiation procedure.

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

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

8.3.x3.2 Successful Operation



Figure f4: UE Measurement Termination procedure, Successful Operation

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

Upon receipt, the SRNC shall terminate forwarding of UE measurements corresponding to the received *Measurement ID IE*.

8.3.x3.3 Abnormal Conditions

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8.3.x4 UE Measurement Failure [TDD]

8.3.x4.1 General

This procedure is used by the SRNC to notify the DRNC that a measurement previously requested by the UE Measurement Initiation procedure can no longer be reported.

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

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

8.3.x4.2 Successful Operation

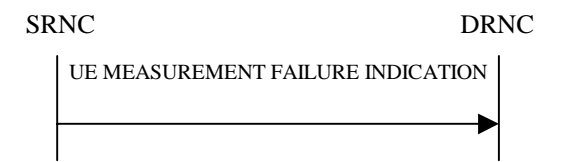


Figure f5: UE Measurement Failure procedure, Successful Operation

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

Typical cause values are:

Miscellaneous Causes:

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

8.3.x4.3 Abnormal Conditions

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9.1.z1 UE MEASUREMENT INITIATION REQUEST [TDD]

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>	<u>Criticality</u>	<u>Assigned Criticality</u>
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		=	
Allowed Queing Time	O		9.2.1.2		YES	reject
Measurement ID	M		9.2.1.37		YES	reject
UE Measurement Type	M		9.2.3.y7		YES	reject
UE Measurement Timeslot information HCR	O		9.2.3.y4	3.84 Mcps TDD only	YES	reject
UE Measurement Timeslot information LCR	O		9.2.3.y5	1.28 Mcps TDD only	YES	reject
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
UE Measurement Report Characteristics	M		9.2.3.y2		YES	reject
UE Measurement Parameter Modification Allowed	O		9.2.3.y1		YES	reject

9.1.z2 UE MEASUREMENT INITIATION RESPONSE [TDD]

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>	<u>Criticality</u>	<u>Assigned Criticality</u>
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
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
UE Measurement Report Characteristics	O		9.2.3.y2		YES	reject
Criticality Diagnostics	O		9.2.1.13		YES	ignore

9.1.z3 UE MEASUREMENT INITIATION FAILURE [TDD]

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>	<u>Criticality</u>	<u>Assigned Criticality</u>
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	O		9.2.1.13		YES	ignore

9.1.z4 UE MEASUREMENT REPORT [TDD]

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>	<u>Criticality</u>	<u>Assigned Criticality</u>
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
UE Measurement Value Information	M		9.2.3.y9		YES	ignore

9.1.z5 UE MEASUREMENT TERMINATION REQUEST [TDD]

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>	<u>Criticality</u>	<u>Assigned Criticality</u>
<u>Message Type</u>	<u>M</u>		<u>9.2.1.40</u>		<u>YES</u>	<u>ignore</u>
<u>Transaction ID</u>	<u>M</u>		<u>9.2.1.59</u>		<u>=</u>	
<u>Measurement ID</u>	<u>M</u>		<u>9.2.1.37</u>		<u>YES</u>	<u>ignore</u>

9.1.z6 UE MEASUREMENT FAILURE INDICATION [TDD]

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>	<u>Criticality</u>	<u>Assigned Criticality</u>
<u>Message Type</u>	<u>M</u>		<u>9.2.1.40</u>		<u>YES</u>	<u>ignore</u>
<u>Transaction ID</u>	<u>M</u>		<u>9.2.1.59</u>		<u>=</u>	
<u>Measurement ID</u>	<u>M</u>		<u>9.2.1.37</u>		<u>YES</u>	<u>ignore</u>
<u>Cause</u>	<u>M</u>		<u>9.2.1.5</u>		<u>YES</u>	<u>ignore</u>

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	M			
>Radio Network Layer				
>>Radio 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, 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 Temporarily 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/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 for the object, Power Balancing status not compatible, Delayed Activation not Supported, RL Timing Adjustment Not Supported, Unknown RNTI, Measurement Repetition Rate not Compatible with Current Measurements. UE not Capable to Implement Measurement)	
>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.

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 Available	The value of the received <i>Diversity Control Field</i> IE was set to 'Must', but the DRNS cannot perform the requested combining
CM not Supported	The concerned cell(s) do not support Compressed Mode
Common Transport Channel Type not Supported	The concerned cell(s) do not support the RACH and/or FACH and/or CPCH Common Transport Channel Type
Dedicated Transport Channel Type not Supported	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 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 Supported	The concerned cell(s) do not support the Downlink Shared Channel Type
DPC Mode Change not Supported	The concerned cells do not support the DPC mode changes
Information Provision not supported for the object	The RNS doesn't support provision of the requested information for the concerned object types
Information temporarily not available	The RNS can temporarily not provide the requested information
Invalid CM Settings	The concerned cell(s) consider the requested Compressed Mode settings invalid
Measurement not Supported For The Object	At least one of the concerned cell(s) does not support the requested measurement on the concerned object type
Measurement Repetition Rate not Compatible with Current Measurements	The requested parameters for a forwarded UE measurement are not compatible with the current measurement schedule in the SRNC.
Measurement Temporarily not Available	The DRNS can temporarily not provide the requested measurement value
Number of DL Codes not Supported	The concerned cell(s) do not support the requested number of DL codes
Number of UL Codes not Supported	The concerned cell(s) do not support the requested number of UL codes
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not support
Power Balancing status not compatible	The power balancing status in the SRNC is not compatible with that of the DRNC.
RL Timing Adjustment not Supported	The concerned cell(s) do not support adjustments of the RL timing
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 elapsed
Reconfiguration not Allowed	The SRNC does currently not allow the requested reconfiguration
Requested Configuration not Supported	The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters,.....
Requested Tx Diversity mode not Supported	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 UE Context
Synchronisation Failure	Loss of UL Uu synchronisation
Transaction not Supported by Destination Node B	The requested action cannot be performed due to lack of support of the corresponding action in the destination Node B
UE not Capable to Implement Measurement	The UE is not capable to initiate/report a requested measurement due to its current state or capabilities.
UL Radio Resources not Available	The DRNS does not have sufficient UL radio resources available
UL Scrambling Code Already in Use	The concerned UL scrambling code is already in use for another UE
UL SF not Supported	The concerned cell(s) do not support the requested minimum UL SF
UL Shared Channel Type not Supported	The concerned cell(s) do not support the Uplink Shared Channel Type
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 Notify)	The received message included an abstract syntax error and the concerned criticality indicated "ignore and notify" (see subclause 10.3)
Abstract syntax error (falsely constructed message)	The received message contained IEs or IE groups in wrong order or with too many occurrences (see subclause 10.3)
Message not Compatible with Receiver State	The received message was not compatible with the receiver state (see 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 Resources	DRNS has insufficient user plane processing resources available
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.

9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context [\[TDD – or a UE measurement within a UE Context\]](#).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			INTEGER(0 .. 2 ²⁰ -1)	

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 (0..255)	"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 Deletion "16" = Radio Link Failure "17" = 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 "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 Exchange Initiation "32" = Information Reporting "33" = Information Exchange Termination "34" = Radio Link Congestion "35" = Reset "36" = Radio Link Activation "38" = Radio Link Parameter Update "39" = UE Measurement Failure "40" = UE Measurement Initiation "41" = UE Measurement Reporting "42" = UE Measurement Termination
>Ddmode	M		ENUMERATED(FDD, TDD, Common, ...)	Common = common to FDD and TDD.
Type of Message	M		ENUMERATED(Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.3.X Primary CCPCH RSCP Delta

Primary CCPCH RSCP Delta is the offset used to report the negative reporting range of P-CCPCH RSCP as per [24].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
Primary CCPCH RSCP Delta			INTEGER(-5..-1,...)	If present, the actual value of Primary CCPCH RSCP = Primary CCPCH RSCP Delta

9.2.3.y0 UE Measurement Hysteresis Time

The UE Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the UE Measurement Reporting procedure to be triggered, see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>UE Measurement Hysteresis Time</u>			<u>INTEGER(0..15)</u>	Unit: dB Range: 0..7.5 dB Step: 0.5 dB

9.2.3.y1 UE Measurement Parameter Modification Allowed

Indicates if the SRNC may modify the UE measurement parameters based on its existing measurement schedule.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>UE Measurement Parameter Modification Allowed</u>			<u>ENUMERATED (Parameter Modification Allowed, ...)</u>	

9.2.3.y2 UE Measurement Report Characteristics

The UE Measurement Report Characteristics, defines how the reporting shall be performed. For definition of the event criteria see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>CHOICE UE Report Characteristics</u>				
<u>>Periodic</u>				
<u>>>Amount of Reporting</u>	<u>M</u>		<u>ENUMERATED(1, 2, 4, 8, 16, 32, 64, infinity)</u>	
<u>>>Reporting Interval</u>	<u>M</u>		<u>ENUMERATED(250, 500, 1000, 2000, 3000, 4000, 6000, 8000, 12000, 16000, 20000, 24000, 28000, 32000, 64000)</u>	Indicates the interval of periodical report interval in milliseconds
<u>>Event 1h</u>				
<u>>>UE Measurement Threshold</u>	<u>M</u>		<u>9.2.3.y3</u>	The threshold for which the DRNS shall trigger a measurement report.
<u>>>UE Measurement Time to Trigger</u>	<u>M</u>		<u>9.2.3.y6</u>	
<u>>>Hysteresis</u>	<u>M</u>		<u>9.2.3.y0</u>	
<u>>Event 1i</u>				
<u>>>UE Measurement Threshold</u>	<u>M</u>		<u>9.2.3.y3</u>	The threshold for which the DRNS shall trigger a measurement report.
<u>>>UE Measurement Time to Trigger</u>	<u>M</u>		<u>9.2.3.y6</u>	
<u>>>Hysteresis</u>	<u>M</u>		<u>9.2.3.y0</u>	
<u>>Event 6a</u>				
<u>>>UE Measurement Threshold</u>	<u>M</u>		<u>9.2.3.y3</u>	
<u>>>UE Measurement</u>	<u>M</u>		<u>9.2.3.y6</u>	

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
Time to Trigger				
>Event 6b				
>>UE Measurement Threshold	M		9.2.3.y3	
>>UE Measurement Time to Trigger	M		9.2.3.y6	
>Event 6c				
>>UE Measurement Time to Trigger	M		9.2.3.y6	
>Event 6d				
>>UE Measurement Time to Trigger	M		9.2.3.y6	

9.2.3.y3 UE Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event 1h, 1i, 6a or 6b, see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
CHOICE UE Measurement Threshold				
>Timeslot ISCP				
>>Timeslot ISCP	M		INTEGER (-115..-25)	In dBm
>UE Tx Power				
>>UE Transmitted Power	M		INTEGER(-50..33)	In dBm

9.2.3.y4 UE Measurement Timeslot Information HCR

The UE Measurement Time Slot Information IE provides information for DL timeslots for the UE to measure, see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
UE Measurement Timeslot Information		1..<maxnoOfTS>		
>Time Slot	M		9.2.1.56	
>Burst Type	M		ENUMERATED(Type1, Type 2, Type 3,...)	

<u>Range bound</u>	<u>Explanation</u>
maxnoofTSs	Maximum number of Timeslots for a UE for 3.84Mcps TDD.

9.2.3.y5 UE Measurement Timeslot Information LCR

The UE Measurement Time Slot Information LCR IE provides information for DL timeslots for the UE to measure, see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
UE Measurement Time Slot Information LCR		1..<maxnoOfTSLCR>		
>Time Slot LCR	M	≥	9.2.3.12a	

<u>Range bound</u>	<u>Explanation</u>
<u>maxnoOfTSLCR</u>	Maximum number of Timeslots for a UE for 1.28Mcps TDD

9.2.3.y6 UE Measurement Time to Trigger

The UE time to trigger indicates the period of time between the timing of event detection and the timing of sending Measurement Report, see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>UE Measurement Time to trigger</u>	M		ENUMERATED(0, 10, 20, 40, 60, 80, 100, 120, 160, 200, 240, 320, 640, 1280, 2560, 5000)	Time in ms.

9.2.3.y7 UE Measurement Type

The UE Measurement Type identifies the type of measurement that shall be performed see [16].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>UE Measurement Type</u>	M		ENUMERATED(Primary CCPCH RSCP, DL Timeslot ISCP, UE Transmitted Power,...)	

9.2.3.y8 UE Measurement Value

The UE Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>CHOICE UE Measurement Value</u>	M			
>UE Transmitted Power				
>>UE Transmitted Power list HCR		0..<maxnoOfTS>		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD
>>>Time Slot	M		9.2.1.56	
>>>UE Transmitted Power	M		INTEGER (0..104)	According to mapping in [24] Values 0, 20 are not used
>>UE Transmitted Power list LCR		0..<maxnoOfTSLCR>		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
>>>Time Slot LCR	M		9.2.3.12a	
>>>UE Transmitted Power	M		INTEGER (0..104)	According to mapping in [24] Values 0, 20 are not used
>P-CCPCH RSCP				
>>Primary CCPCH RSCP	O		9.2.3.5	According to mapping in [24]
>>Primary CCPCH RSCP Delta	O		9.2.3.X	According to mapping in [24]
>DL Timeslot ISCP				
>>Timeslot list HCR		0..<maxnoOfTS>		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps

				TDD
>>>Time Slot	M		9.2.1.56	
>>>Timeslot ISCP	M		9.2.3.12	
>>Timeslot list LCR		0..<maxnoOfTSLCR>		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
>>>Time Slot LCR	M		9.2.3.12a	
>>>Timeslot ISCP	M		9.2.3.12	

Range bound	Explanation
maxnoOfTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD.
maxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD.

[9.2.3.y9](#) [UE Measurement Value Information](#)

[The UE Measurement Value Information IE provides information both on whether or not the UE Measurement Value is provided in the message and if provided also the UE Measurement Value itself.](#)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement Availability Indicator	M			
>Measurement Available				
>>UE Measurement Value	M		9.2.3.y8	
>Measurement not Available			NULL	

9.3.2 Elementary Procedure Definitions

```
-- *****
--
-- 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,
[UEMeasurementFailureIndication,](#)
[UEMeasurementInitiationFailure,](#)
[UEMeasurementInitiationRequest,](#)

UEMeasurementInitiationResponse,
UEMeasurementReport,
UEMeasurementTerminationRequest,
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-uEMeasurementFailure,
id-uEMeasurementInitiation,
id-uEMeasurementReporting,
id-uEMeasurementTermination,
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    &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME  &UnsuccessfulOutcome]
    [OUTCOME               &Outcome]
    PROCEDURE ID           &procedureID
    [CRITICALITY           &criticality]
}
```

```
-- *****
--
-- Interface PDU Definition
--
-- *****
```

```
RNSAP-PDU ::= CHOICE {
    initiatingMessage      InitiatingMessage,
    successfulOutcome      SuccessfulOutcome,
    unsuccessfulOutcome    UnsuccessfulOutcome,
    outcome                Outcome,
    ...
}
```

```
InitiatingMessage ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ( {RNSAP-ELEMENTARY-PROCEDURES} ),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ( {RNSAP-ELEMENTARY-PROCEDURES}{@procedureID} ),
    transactionID TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage ( {RNSAP-ELEMENTARY-PROCEDURES}{@procedureID} )
}
```

```
SuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ( {RNSAP-ELEMENTARY-PROCEDURES} ),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ( {RNSAP-ELEMENTARY-PROCEDURES}{@procedureID} ),
    transactionID TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome ( {RNSAP-ELEMENTARY-PROCEDURES}{@procedureID} )
}
```



```

}

UnsuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID TransactionID,
    value       RNSAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID      ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality      ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    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
    unSynchronisedRadioLinkReconfigurationFDD
    unSynchronisedRadioLinkReconfigurationTDD
    physicalChannelReconfigurationFDD
    physicalChannelReconfigurationTDD
    dedicatedMeasurementInitiation
    commonTransportChannelResourcesInitialisationFDD
    commonTransportChannelResourcesInitialisationTDD
    ...,
    commonMeasurementInitiation
    informationExchangeInitiation
    reset
    uEMeasurementInitiation
}

```

```

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
  uEMeasurementReporting
  uEMeasurementTermination
  uEMeasurementFailure
}

```

```

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
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
    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
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID             { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    CRITICALITY              reject
}

synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME      RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
    PROCEDURE ID             { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY              reject
}

```

```
unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponseFDD
    UNSUCCESSFUL OUTCOME RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    CRITICALITY         reject
}

unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME  RadioLinkReconfigurationResponseTDD
    UNSUCCESSFUL OUTCOME RadioLinkReconfigurationFailure
    PROCEDURE ID        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    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
    PROCEDURE ID        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY         reject
}

commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME  CommonTransportChannelResourcesResponseFDD
    UNSUCCESSFUL OUTCOME CommonTransportChannelResourcesFailure
    PROCEDURE ID        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
    CRITICALITY         reject
}

commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE  CommonTransportChannelResourcesRequest
```

```

SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseTDD
UNSUCCESSFUL OUTCOME CommonTransportChannelResourcesFailure
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
  PROCEDURE ID      { procedureCode id-downlinkSignallingTransfer, ddMode common }
  CRITICALITY      ignore
}

relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE RelocationCommit
  PROCEDURE ID      { procedureCode id-relocationCommit, ddMode common }
  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
    PROCEDURE ID          { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    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
    PROCEDURE ID          { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY          ignore
}

radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE    RadioLinkCongestionIndication
    PROCEDURE ID          { procedureCode id-radioLinkCongestion, ddMode common }
    CRITICALITY          reject
}

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
  PROCEDURE ID        { procedureCode id-errorIndication, ddMode common }
  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         ignore
}

commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE  CommonMeasurementTerminationRequest
  PROCEDURE ID        { procedureCode id-commonMeasurementTermination, ddMode common }
  CRITICALITY         ignore
}

commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE  CommonMeasurementFailureIndication
  PROCEDURE ID        { procedureCode id-commonMeasurementFailure, ddMode common }
  CRITICALITY         ignore
}

informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE  InformationExchangeInitiationRequest
  SUCCESSFUL OUTCOME  InformationExchangeInitiationResponse
  UNSUCCESSFUL OUTCOME  InformationExchangeInitiationFailure
  PROCEDURE ID        { procedureCode id-informationExchangeInitiation, ddMode common }
  CRITICALITY         reject
}
```

```
informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationReport
    PROCEDURE ID            { procedureCode id-informationReporting, ddMode common }
    CRITICALITY             ignore
}

informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeTerminationRequest
    PROCEDURE ID            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY             ignore
}

informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      InformationExchangeFailureIndication
    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 ::= {
    INITIATING MESSAGE      RadioLinkActivationCommandFDD
    PROCEDURE ID            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY             ignore
}

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
  PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
  CRITICALITY             ignore
}

```

```

radioLinkParameterUpdateTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkParameterUpdateIndicationTDD
  PROCEDURE ID            { procedureCode id-radioLinkParameterUpdate, ddMode tdd }
  CRITICALITY             ignore
}

```

```

uEMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      UEMeasurementInitiationRequest
  SUCCESSFUL OUTCOME      UEMeasurementInitiationResponse
  UNSUCCESSFUL OUTCOME    UEMeasurementInitiationFailure
  PROCEDURE ID            { procedureCode id-uEMeasurementInitiation, ddMode tdd }
  CRITICALITY             reject
}

```

```

uEMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      UEMeasurementReport
  PROCEDURE ID            { procedureCode id-uEMeasurementReporting, ddMode tdd }
  CRITICALITY             ignore
}

```

```

uEMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      UEMeasurementTerminationRequest
  PROCEDURE ID            { procedureCode id-uEMeasurementTermination, ddMode tdd }
  CRITICALITY             ignore
}

```

```

uEMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      UEMeasurementFailureIndication
  PROCEDURE ID            { procedureCode id-uEMeasurementFailure, ddMode tdd }
  CRITICALITY             ignore
}

```

END

9.3.3 PDU Definitions

```

-- *****
--
-- PDU definitions for RNSAP.
--
-- *****

```

```
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,
AllowedQueuingTime,
Allowed-Rate-Information,
AlphaValue,
AntennaColocationIndicator,
BLER,
SCTD-Indicator,
BindingID,
C-ID,
C-RNTI,
CCTrCH-ID,
CFN,
ClosedLoopModel-SupportIndicator,
ClosedLoopMode2-SupportIndicator,
Closedlooptimingadjustmentmode,
CN-CS-DomainIdentifier,
CN-PS-DomainIdentifier,
CNDomainType,
Cause,
CellCapabilityContainer-FDD,
CellCapabilityContainer-TDD,
CellCapabilityContainer-TDD-LCR,
CellParameterID,
CellPortionID,
ChipOffset,
CommonMeasurementAccuracy,
CommonMeasurementType,
CommonMeasurementValue,
CommonMeasurementValueInformation,
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-Information-to-Modify-Unsynchronised,
HSDSCH-MACdFlow-ID,
HSDSCH-MACdFlows-Information,
HSDSCH-MACdFlows-to-Delete,
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,
Qth-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,
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,
TnlQos,
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,
[UEMeasurementType,](#)
[UEMeasurementTimeslotInfoHCR,](#)
[UEMeasurementTimeslotInfoLCR,](#)
[UEMeasurementReportCharacteristics,](#)
[UEMeasurementParameterModAllow,](#)
[UEMeasurementValueInformation,](#)
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-AllowedQueueingTime,
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-CellPortionID,
id-ClosedLoopModel-SupportIndicator,
id-ClosedLoopMode2-SupportIndicator,
id-CNOriginatedPage-PagingRqst,
id-CommonMeasurementAccuracy,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rqst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
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-ReconfRqstTDD,
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-SetupRqstTDD,
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
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-ReconfRqstTDD,
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-SetupRqstFDD,
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-SetupRqstTDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-PowerBalancing-UpdatedIndicator,
id-DL-ReferencePowerInformation,
id-DLReferencePower,
id-DLReferencePowerList-DL-PC-Rqst,
id-DL-ReferencePowerInformation-DL-PC-Rqst,
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-Update-Information,
id-HSDSCH-TDD-Update-Information,
id-HSDSCH-Information-to-Modify,
id-HSDSCH-Information-to-Modify-Unsynchronised,
id-HSDSCH-MACdFlows-to-Add,
id-HSDSCH-MACdFlows-to-Delete,
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-HSPDSCH-RL-ID,
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
id-HSSICH-Info-DM-Rprt,
id-HSSICH-Info-DM-Rqst,
id-HSSICH-Info-DM,
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rqst,
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-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
id-PagingArea-PagingRqst,
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-ReconfPrepTDD,
id-RL-Information-RL-RestoreInd,
id-RL-Information-RL-SetupRqstFDD,
id-RL-Information-RL-SetupRqstTDD,
id-RL-InformationItem-RL-CongestInd,
id-RL-InformationItem-DM-Rprt,
id-RL-InformationItem-DM-Rqst,
id-RL-InformationItem-DM-Rsp,
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-SetupRqstFDD,
id-RL-InformationList-RL-CongestInd,
id-RL-InformationList-RL-AdditionRqstFDD,
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-ReconfigurationRequestFDD-RL-InformationList,
id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
id-RL-ReconfigurationRequestTDD-RL-Information,
id-RL-ReconfigurationResponseTDD-RL-Information,
id-RL-Specific-DCH-Info,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rqst,
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-Reporting-Object-RL-RestoreInd,
id-RNC-ID,
id-RxTimingDeviationForTA,
id-S-RNTI,
id-SAI,
id-Secondary-CPICH-Information,
id-Secondary-CPICH-Information-Change,
id-SFN,
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-TnlQos,
id-TransportBearerID,
id-TransportBearerRequestIndicator,
id-TransportLayerAddress,

id-UC-ID,
id-ContextInfoItem-Reset,
id-ContextGroupInfoItem-Reset,
id-Transmission-Gap-Pattern-Sequence-Information,
[id-UEMeasurementType](#),
[id-UEMeasurementTimeslotInfoHCR](#),
[id-UEMeasurementTimeslotInfoLCR](#),
[id-UEMeasurementReportCharacteristics](#),
[id-UEMeasurementParameterModAllow](#),
[id-UEMeasurementValueInformation](#),
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-ReconfRqstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
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-SetupRqstFDD,
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD,
id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
id-UL-DPCH-InformationItem-RL-SetupRspTDD,
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
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-AdditionRqstTDD,
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-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD,
id-TSTD-Support-Indicator-RL-SetupRqstTDD,
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-SetupRqstTDD,
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
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

```

-- *****
--
-- UE MEASUREMENT INITIATION REQUEST
--
-- *****

UEMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{UEMeasurementInitiationRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{UEMeasurementInitiationRequest-Extensions}} OPTIONAL,
    ...
}

UEMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject TYPE AllowedQueuingTime          PRESENCE optional } |
    { ID id-MeasurementID                CRITICALITY reject TYPE MeasurementID                PRESENCE mandatory } |
    { ID id-UEMeasurementType           CRITICALITY reject TYPE UEMeasurementType           PRESENCE mandatory } |
    { ID id-UEMeasurementTimeslotInfoHCR CRITICALITY reject TYPE UEMeasurementTimeslotInfoHCR PRESENCE optional } |
    { ID id-UEMeasurementTimeslotInfoLCR CRITICALITY reject TYPE UEMeasurementTimeslotInfoLCR PRESENCE optional } |
    { ID id-MeasurementFilterCoefficient CRITICALITY reject TYPE MeasurementFilterCoefficient PRESENCE optional } |
    { ID id-UEMeasurementReportCharacteristics CRITICALITY reject TYPE UEMeasurementReportCharacteristics PRESENCE mandatory } |
    { ID id-UEMeasurementParameterModAllow CRITICALITY reject TYPE UEMeasurementParameterModAllow PRESENCE mandatory },
    ...
}

UEMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- UE MEASUREMENT INITIATION RESPONSE
--
-- *****

UEMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{UEMeasurementInitiationResponse-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{UEMeasurementInitiationResponse-Extensions}} OPTIONAL,
    ...
}

UEMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                CRITICALITY ignore TYPE MeasurementID                PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient CRITICALITY reject TYPE MeasurementFilterCoefficient PRESENCE optional } |
    { ID id-UEMeasurementReportCharacteristics CRITICALITY reject TYPE UEMeasurementReportCharacteristics PRESENCE optional } |
    { ID id-CriticalityDiagnostics        CRITICALITY ignore TYPE CriticalityDiagnostics        PRESENCE optional },
    ...
}

UEMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

-- *****
--
-- UE MEASUREMENT INITIATION FAILURE
--
-- *****

UEMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{UEMeasurementInitiationFailure-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{UEMeasurementInitiationFailure-Extensions}} OPTIONAL,
    ...
}

UEMeasurementInitiationFailure-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 },
    ...
}

UEMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- UE MEASUREMENT REPORT
--
-- *****

UEMeasurementReport ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{UEMeasurementReport-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{UEMeasurementReport-Extensions}} OPTIONAL,
    ...
}

UEMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore TYPE MeasurementID          PRESENCE mandatory } |
    { ID id-UEMeasurementValueInformation CRITICALITY ignore TYPE UEMeasurementValueInformation PRESENCE mandatory },
    ...
}

UEMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- UE MEASUREMENT TERMINATION REQUEST
--
-- *****

```

```

UEMeasurementTerminationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{UEMeasurementTerminationRequest-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{UEMeasurementTerminationRequest-Extensions}}
}
OPTIONAL,
...
}

UEMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore TYPE MeasurementID          PRESENCE mandatory },
    ...
}

UEMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- UE MEASUREMENT FAILURE INDICATION
--
-- *****

UEMeasurementFailureIndication ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{UEMeasurementFailureIndication-IEs}},
    protocolExtensions  ProtocolExtensionContainer {{UEMeasurementFailureIndication-Extensions}}
}
OPTIONAL,
...
}

UEMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore TYPE MeasurementID          PRESENCE mandatory },
    { ID id-Cause                  CRITICALITY ignore TYPE Cause                  PRESENCE mandatory },
    ...
}

UEMeasurementFailureIndication-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

```
-- *****
--
-- Information Element Definitions
--
-- *****

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    maxCodeNumComp-1,
    maxNrOfFACHs,
    maxFACHCountPlus1,
    maxIBSEG,
    maxNoOfDSCHs,
    maxNoOfDSCHs-1,
    maxNoOfUSCHs,
    maxNoTFCIGroups,
    maxNoCodeGroups,
    maxNrOfDCHs,
    maxNrOfDL-Codes,
    maxNrOfDLTs,
    maxNrOfDLTsLCR,
    maxNrOfDPCHs,
    maxNrOfDPCHsLCR,
    maxNrOfErrors,
    maxNrOfFDDNeighboursPerRNC,
    maxNrOfMACcshSDU-Length,
    maxNrOfNeighbouringRNCs,
    maxNrOfTDDNeighboursPerRNC,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfTS,
    maxNrOfTsLCR,
    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 ,
maxNrOfPrioQueues ,
maxNrOfPrioQueues-1 ,
maxNrOfPriorityClasses ,
maxNrOfSatAlmanac-maxNoSat ,

```
-- 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-temporarily-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-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-for-the-object,  
power-balancing-status-not-compatible,  
delayed-activation-not-supported,  
rl-timing-adjustment-not-supported,  
unknown-RNTI,  
measurement-repetition-rate-not-compatible,  
ue-not-capable-of-support  
}  
  
CauseTransport ::= ENUMERATED {  
    transport-resource-unavailable,  
    unspecified,  
    ...  
}
```

```
-- 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,
    iE-Extensions               ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs } } OPTIONAL,
    ...
}

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-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,
    iE-Extensions        ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs} } OPTIONAL,
    ...
}

PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCHCodeMapping-SignallingMethod-TFCIRange ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
SEQUENCE {
    maxTFCIvalue      MaxTFCIvalue,
    spreadingFactor   SpreadingFactor,
    multi-code-info   Multi-code-info,
    codeNumber        CodeNumber,
    iE-Extensions     ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs} } OPTIONAL,
    ...
}

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,
    iE-Extensions           ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs} } OPTIONAL,
    ...
}

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 {
    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)
| -- Mapping of Non Negative values aAccording to maping in [1424]
| PrimaryCCPCH-RSCP-Delta ::= INTEGER (-5..-1,...)
| -- Mapping of Negative values according to maping in [24]
```

```

-- U

UARFCN ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See [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 ::= {
    ...
}

UEMeasurementHysteresisTime ::= INTEGER (0..15)
-- Unit dB
-- Range 0..7.5 dB
-- Step 0.5 dB

UEMeasurementParameterModAllow ::= ENUMERATED {
    parameterModificationAllowed,
    ...
}

UEMeasurementReportCharacteristics ::= CHOICE {
    periodic                UEMeasurementReportCharacteristicsPeriodic,
    event1h                 UEMeasurementReportCharacteristicsEvent1h,
    event1i                 UEMeasurementReportCharacteristicsEvent1i,
    event6a                 UEMeasurementReportCharacteristicsEvent6a,
    event6b                 UEMeasurementReportCharacteristicsEvent6b,
    event6c                 UEMeasurementReportCharacteristicsEvent6c,
    event6d                 UEMeasurementReportCharacteristicsEvent6d,
    ...,
    extension-ReportCharacteristics    UEMeasurementReportCharacteristics-Extension
}

UEMeasurementReportCharacteristicsEvent1h ::= SEQUENCE {
    uEMeasurementTreshold    UEMeasurementThreshold,
    uEMeasurementTimeToTrigger    UEMeasurementTimeToTrigger,
    uEMeasurementHysteresisTime    UEMeasurementHysteresisTime,
    iE-Extensions             ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent1h-ExtIEs } }    OPTIONAL,
}

```

```

    ...
}

UEMeasurementReportCharacteristicsEvent1h-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent1i ::= SEQUENCE {
    uMeasurementTreshold      UEMeasurementThreshold,
    uMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    uMeasurementHysteresisTime UEMeasurementHysteresisTime,
    iE-Extensions             ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent1i-ExtIEs } } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent1i-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6a ::= SEQUENCE {
    uMeasurementTreshold      UEMeasurementThreshold,
    uMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    iE-Extensions             ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6a-ExtIEs } } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6a-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6b ::= SEQUENCE {
    uMeasurementTreshold      UEMeasurementThreshold,
    uMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    iE-Extensions             ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6b-ExtIEs } } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6b-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsEvent6c ::= SEQUENCE {
    uMeasurementTimeToTrigger UEMeasurementTimeToTrigger,
    iE-Extensions             ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6c-ExtIEs } } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6c-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

UEMeasurementReportCharacteristicsEvent6d ::= SEQUENCE {
    uEMeasurementTimeToTrigger  UEMeasurementTimeToTrigger,
    iE-Extensions                ProtocolExtensionContainer { { UEMeasurementReportCharacteristicsEvent6d-ExtIEs } } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsEvent6d-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristicsPeriodic ::= SEQUENCE {
    amountOfReporting            UEMeasurementReportCharacteristicsPeriodicAmountOfReporting,
    reportingInterval            UEMeasurementReportCharacteristicsPeriodicReportingInterval,
    iE-Extensions                ProtocolExtensionContainer { {UEMeasurementReportCharacteristicsPeriodic-ExtIEs} } OPTIONAL,
    ...
}

UEMeasurementReportCharacteristicsPeriodicAmountOfReporting ::= ENUMERATED {
    r1,
    r2,
    r4,
    r8,
    r16,
    r32,
    r64,
    rInfinity
}

UEMeasurementReportCharacteristicsPeriodicReportingInterval ::= ENUMERATED {
    r250,
    r500,
    r1000,
    r2000,
    r3000,
    r4000,
    r6000,
    r8000,
    r12000,
    r16000,
    r20000,
    r24000,
    r28000,
    r32000,
    r64000
}

UEMeasurementReportCharacteristicsPeriodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementReportCharacteristics-Extension ::= ProtocolIE-Single-Container {{ UEMeasurementReportCharacteristics-ExtensionIE }}

```

```

UEMeasurementReportCharacteristics-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementThreshold ::= CHOICE {
    timeslotISCP                UEMeasurementThresholdDLTimeslotISCP,
    uETransmitPower             UEMeasurementThresholdUETransmitPower,
    ...
    extension-UEMeasurementThreshold  UEMeasurementThreshold-Extension
}

UEMeasurementThresholdDLTimeslotISCP ::= INTEGER(-115..-25)

UEMeasurementThresholdUETransmitPower ::= INTEGER(-50..33)

UEMeasurementThreshold-Extension ::= ProtocolIE-Single-Container {{ UEMeasurementThreshold-ExtensionIE }}

UEMeasurementThreshold-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}

UEMeasurementTimeslotInfoHCR ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementTimeslotInfoHCR-IES

UEMeasurementTimeslotInfoHCR-IES ::= SEQUENCE {
    timeSlot                TimeSlot,
    burstType               UEMeasurementTimeslotInfoHCRBurstType,
    iE-Extensions           ProtocolExtensionContainer { { UEMeasurementTimeslotInfoHCR-IES-ExtIEs } } OPTIONAL,
    ...
}

UEMeasurementTimeslotInfoHCRBurstType ::= ENUMERATED {
    type1,
    type2,
    type3,
    ...
}

UEMeasurementTimeslotInfoHCR-IES-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeslotInfoLCR ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementTimeslotInfoLCR-IES

UEMeasurementTimeslotInfoLCR-IES ::= SEQUENCE {
    timeSlot                TimeSlotLCR,
    iE-Extensions           ProtocolExtensionContainer { { UEMeasurementTimeslotInfoLCR-IES-ExtIEs } } OPTIONAL,
    ...
}

```

```

UEMeasurementTimeslotInfoLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UEMeasurementTimeToTrigger ::= ENUMERATED {
    r0,
    r10,
    r20,
    r40,
    r60,
    r80,
    r100,
    r120,
    r160,
    r200,
    r240,
    r320,
    r640,
    r1280,
    r2560,
    r5000
}

UEMeasurementType ::= ENUMERATED {
    primary-CCPCH-RSCP,
    dL-Timeslot-ISCP,
    uE-Transmitted-power,
    ...
}

UEMeasurementValue ::= CHOICE {
    uE-Transmitted-Power          UE-MeasurementValue-UE-Transmitted-Power,
    primary-CCPCH-RSCP           UE-MeasurementValue-Primary-CCPCH-RSCP,
    dL-Timeslot-ISCP             UE-MeasurementValue-DL-Timeslot-ISCP,
    ...,
    extension-UEMeasurementValue UEMeasurementValue-Extension
}

UE-MeasurementValue-UE-Transmitted-Power ::= SEQUENCE {
    uEMeasurementTransmittedPowerListHCR          UEMeasurementValueTransmittedPowerListHCR    OPTIONAL,
    -- Mandatory for 3.84Mcps TDD, Not applicable for 1.28Mcps TDD
    uEMeasurementTransmittedPowerListLCR          UEMeasurementValueTransmittedPowerListLCR    OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not applicable for 3.84Mcps TDD
    iE-Extensions                                ProtocolExtensionContainer { { UE-MeasurementValue-UE-Transmitted-Power-ExtIEs} }    OPTIONAL,
    ...
}

UE-MeasurementValue-UE-Transmitted-Power-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

UEMeasurementValueTransmittedPowerListHCR ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTransmittedPowerListHCR-IEs
UEMeasurementValueTransmittedPowerListHCR-IEs ::= SEQUENCE {
    timeSlot TimeSlot,
    uETransmitPower INTEGER(0..104),
    -- mapping according to [24], values 0..20 not used
    iE-Extensions ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerListHCR-IEs-ExtIEs} } OPTIONAL,
    ...
}
UEMeasurementValueTransmittedPowerListHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueTransmittedPowerListLCR ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementValueTransmittedPowerListLCR-IEs
UEMeasurementValueTransmittedPowerListLCR-IEs ::= SEQUENCE {
    timeSlotLCR TimeSlotLCR,
    uETransmitPower INTEGER(0..104),
    -- mapping according to [24], values 0..20 not used
    iE-Extensions ProtocolExtensionContainer { { UEMeasurementValueTransmittedPowerListLCR-IEs-ExtIEs} } OPTIONAL,
    ...
}
UEMeasurementValueTransmittedPowerListLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UE-MeasurementValue-Primary-CCPCH-RSCP ::= SEQUENCE {
    primaryCCPCH-RSCP PrimaryCCPCH-RSCP OPTIONAL,
    primaryCCPCH-RSCP-Delta PrimaryCCPCH-RSCP-Delta OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { { UE-MeasurementValue-Primary-CCPCH-RSCP-ExtIEs} } OPTIONAL,
    ...
}
UE-MeasurementValue-Primary-CCPCH-RSCP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UE-MeasurementValue-DL-Timeslot-ISCP ::= SEQUENCE {
    uEMeasurementTimeslotISCPListHCR UEMeasurementValueTimeslotISCPListHCR OPTIONAL,
    -- Mandatory for 3.84Mcps TDD, Not applicable for 1.28Mcps TDD
    uEMeasurementTimeslotISCPListLCR UEMeasurementValueTimeslotISCPListLCR OPTIONAL,
    -- Mandatory for 1.28Mcps TDD, Not applicable for 3.84Mcps TDD
    iE-Extensions ProtocolExtensionContainer { { UE-MeasurementValue-DL-Timeslot-ISCP-ExtIEs} } OPTIONAL,
    ...
}
UE-MeasurementValue-DL-Timeslot-ISCP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}
UEMeasurementValueTimeslotISCPListHCR ::= SEQUENCE (SIZE (1..maxNrOfTS)) OF UEMeasurementValueTimeslotISCPListHCR-IEs
UEMeasurementValueTimeslotISCPListHCR-IEs ::= SEQUENCE {
    timeSlot                TimeSlot,
    dL-TimeslotISCP         DL-TimeslotISCP,
    iE-Extensions           ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPListHCR-IEs-ExtIEs} } OPTIONAL,
    ...
}
UEMeasurementValueTimeslotISCPListHCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueTimeslotISCPListLCR ::= SEQUENCE (SIZE (1..maxNrOfTsLCR)) OF UEMeasurementValueTimeslotISCPListLCR-IEs
UEMeasurementValueTimeslotISCPListLCR-IEs ::= SEQUENCE {
    timeSlotLCR            TimeSlotLCR,
    dL-TimeslotISCP        DL-TimeslotISCP,
    iE-Extensions          ProtocolExtensionContainer { { UEMeasurementValueTimeslotISCPListLCR-IEs-ExtIEs} } OPTIONAL,
    ...
}
UEMeasurementValueTimeslotISCPListLCR-IEs-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValue-Extension ::= ProtocolIE-Single-Container { { UEMeasurementValue-ExtensionIE } }
UEMeasurementValue-ExtensionIE RNSAP-PROTOCOL-IES ::= {
    ...
}
UEMeasurementValueInformation ::= CHOICE {
    measurementAvailable    UEMeasurementValueInformationAvailable,
    measurementnotAvailable UEMeasurementValueInformationnotAvailable
}
UEMeasurementValueInformationAvailable ::= SEQUENCE {
    uEMeasurementValue      UEMeasurementValue,
    iE-Extensions           ProtocolExtensionContainer { { UEMeasurementValueInformationAvailableItem-ExtIEs} } OPTIONAL,
    ...
}
UEMeasurementValueInformationAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
UEMeasurementValueInformationnotAvailable ::= NULL

```

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
--
-- *****

id-commonTransportChannelResourcesInitialisation      ProcedureCode ::= 0
id-commonTransportChannelResourcesRelease             ProcedureCode ::= 1
id-compressedModeCommand                             ProcedureCode ::= 2
id-downlinkPowerControl                              ProcedureCode ::= 3
id-downlinkPowerTimeslotControl                      ProcedureCode ::= 4
id-downlinkSignallingTransfer                        ProcedureCode ::= 5
id-errorIndication                                   ProcedureCode ::= 6
id-dedicatedMeasurementFailure                       ProcedureCode ::= 7
id-dedicatedMeasurementInitiation                   ProcedureCode ::= 8
id-dedicatedMeasurementReporting                     ProcedureCode ::= 9
id-dedicatedMeasurementTermination                  ProcedureCode ::= 10
id-paging                                             ProcedureCode ::= 11
id-physicalChannelReconfiguration                    ProcedureCode ::= 12
id-privateMessage                                    ProcedureCode ::= 13
id-radioLinkAddition                                 ProcedureCode ::= 14
id-radioLinkCongestion                              ProcedureCode ::= 34
id-radioLinkDeletion                                ProcedureCode ::= 15
id-radioLinkFailure                                  ProcedureCode ::= 16
id-radioLinkPreemption                               ProcedureCode ::= 17
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
id-commonMeasurementInitiation	ProcedureCode ::= 27
id-commonMeasurementReporting	ProcedureCode ::= 28
id-commonMeasurementTermination	ProcedureCode ::= 29
id-informationExchangeFailure	ProcedureCode ::= 30
id-informationExchangeInitiation	ProcedureCode ::= 31
id-informationReporting	ProcedureCode ::= 32
id-informationExchangeTermination	ProcedureCode ::= 33
id-reset	ProcedureCode ::= 35
id-radioLinkActivation	ProcedureCode ::= 36
id-gERANuplinkSignallingTransfer	ProcedureCode ::= 37
id-radioLinkParameterUpdate	ProcedureCode ::= 38
<u>id-uEMeasurementFailure</u>	<u>ProcedureCode ::= 39</u>
<u>id-uEMeasurementInitiation</u>	<u>ProcedureCode ::= 40</u>
<u>id-uEMeasurementReporting</u>	<u>ProcedureCode ::= 41</u>
<u>id-uEMeasurementTermination</u>	<u>ProcedureCode ::= 42</u>

```
-- *****
--
-- Lists
--
-- *****
```

maxCodeNumComp-1	INTEGER ::= 255
maxRateMatching	INTEGER ::= 256
maxNoCodeGroups	INTEGER ::= 256
maxNoOfDSCHs	INTEGER ::= 10
maxNoOfDSCHsLCR	INTEGER ::= 10
maxNoOfRB	INTEGER ::= 32
maxNoOfUSCHs	INTEGER ::= 10
maxNoOfUSCHsLCR	INTEGER ::= 10
maxNoTFCIGroups	INTEGER ::= 256
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
maxNrOfPoints	INTEGER ::= 15
maxNrOfRLs	INTEGER ::= 16
maxNrOfRLSets	INTEGER ::= maxNrOfRLs
maxNrOfRLSets-1	INTEGER ::= 15 -- maxNrOfRLSets - 1
maxNrOfRLs-1	INTEGER ::= 15 -- maxNrOfRLs - 1

```

maxNrOfRLs-2                INTEGER ::= 14 -- maxNrOfRLs - 2
maxNrOfULTs                 INTEGER ::= 15
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
maxNrOfFACHs               INTEGER ::= 8
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
maxResetContextGroup     INTEGER ::= 32
maxNrOfHARQProc          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
maxNrOfPrioQueues-1     INTEGER ::= 7 -- maxNrOfPrioQueues - 1
maxNrOfSNAs              INTEGER ::= 65536
maxNrOfPriorityClasses    INTEGER ::= 16
maxNrOfSatAlmanac-maxNoSat INTEGER ::= 16
-- *****
--
-- IEs
--
-- *****

id-AllowedQueuingTime      ProtocolIE-ID ::= 4
id-Allowed-Rate-Information ProtocolIE-ID ::= 42

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id-AntennaColocationIndicator
id-BindingID
id-C-ID
id-C-RNTI
id-Cell-Capacity-Class-Value
id-CFN
id-CN-CS-DomainIdentifier
id-CN-PS-DomainIdentifier
id-Cause
id-CoverageIndicator
id-CriticalityDiagnostics
id-ContextInfoItem-Reset
id-ContextGroupInfoItem-Reset
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-ReconfRqstTDD
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-InformationListIE-RL-ReconfReadyTDD
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD
id-FDD-DL-CodeInformation
id-DL-DPCH-Information-RL-ReconfPrepFDD
id-DL-DPCH-Information-RL-SetupRqstFDD
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-TimingAdjustment
id-DLReferencePower
id-DLReferencePowerList-DL-PC-Rqst
id-DL-ReferencePowerInformation-DL-PC-Rqst
id-DPC-Mode
id-DRXCycleLengthCoefficient
id-DedicatedMeasurementObjectType-DM-Fail-Ind

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ProtocolIE-ID ::= 309
ProtocolIE-ID ::= 5
ProtocolIE-ID ::= 6
ProtocolIE-ID ::= 7
ProtocolIE-ID ::= 303
ProtocolIE-ID ::= 8
ProtocolIE-ID ::= 9
ProtocolIE-ID ::= 10
ProtocolIE-ID ::= 11
ProtocolIE-ID ::= 310
ProtocolIE-ID ::= 20
ProtocolIE-ID ::= 211
ProtocolIE-ID ::= 515
ProtocolIE-ID ::= 21
ProtocolIE-ID ::= 22
ProtocolIE-ID ::= 26
ProtocolIE-ID ::= 27
ProtocolIE-ID ::= 30
ProtocolIE-ID ::= 31
ProtocolIE-ID ::= 32
ProtocolIE-ID ::= 33
ProtocolIE-ID ::= 34
ProtocolIE-ID ::= 35
ProtocolIE-ID ::= 39
ProtocolIE-ID ::= 40
ProtocolIE-ID ::= 43
ProtocolIE-ID ::= 38
ProtocolIE-ID ::= 44
ProtocolIE-ID ::= 45
ProtocolIE-ID ::= 46
ProtocolIE-ID ::= 47
ProtocolIE-ID ::= 48
ProtocolIE-ID ::= 49
ProtocolIE-ID ::= 50
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ProtocolIE-ID ::= 52
ProtocolIE-ID ::= 53
ProtocolIE-ID ::= 54
ProtocolIE-ID ::= 59
ProtocolIE-ID ::= 60
ProtocolIE-ID ::= 61
ProtocolIE-ID ::= 62
ProtocolIE-ID ::= 63
ProtocolIE-ID ::= 64
ProtocolIE-ID ::= 278
ProtocolIE-ID ::= 67
ProtocolIE-ID ::= 68
ProtocolIE-ID ::= 69
ProtocolIE-ID ::= 12
ProtocolIE-ID ::= 70
ProtocolIE-ID ::= 470

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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
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

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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 ::= 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-SetupRqstTDD	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

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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
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

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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
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

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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-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD
id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD
id-TSTD-Support-Indicator-RL-SetupRqstTDD
id-RestrictionStateIndicator
id-Load-Value
id-Load-Value-IncrDecrThres
id-OnModification
id-Received-Total-Wideband-Power-Value
id-Received-Total-Wideband-Power-Value-IncrDecrThres
id-SFNsFNMeasurementThresholdInformation
id-Transmitted-Carrier-Power-Value
id-Transmitted-Carrier-Power-Value-IncrDecrThres
id-TUTRANGPSMeasurementThresholdInformation
id-UL-Timeslot-ISCP-Value
id-UL-Timeslot-ISCP-Value-IncrDecrThres
id-Rx-Timing-Deviation-Value-LCR
id-DPC-Mode-Change-SupportIndicator
id-SplitType
id-LengthOfTFCI2
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD
id-DSCH-RNTI
id-DL-PowerBalancing-Information
id-DL-PowerBalancing-ActivationIndicator
id-DL-PowerBalancing-UpdatedIndicator
id-DL-ReferencePowerInformation
id-Enhanced-PrimaryCPICH-EcNo
id-IPDL-TDD-ParametersLCR
id-CellCapabilityContainer-FDD
id-CellCapabilityContainer-TDD
id-CellCapabilityContainer-TDD-LCR
id-RL-Specific-DCH-Info
id-RL-ReconfigurationRequestFDD-RL-InformationList
id-RL-ReconfigurationRequestFDD-RL-Information-IEs
id-RL-ReconfigurationRequestTDD-RL-Information
id-CommonTransportChannelResourcesInitialisationNotRequired
id-DelayedActivation
id-DelayedActivationList-RL-ActivationCmdFDD
id-DelayedActivationInformation-RL-ActivationCmdFDD
id-DelayedActivationList-RL-ActivationCmdTDD
id-DelayedActivationInformation-RL-ActivationCmdTDD
id-neighbouringTDDCellMeasurementInformationLCR

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ProtocolIE-ID ::= 94
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ProtocolIE-ID ::= 97
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ProtocolIE-ID ::= 314
ProtocolIE-ID ::= 315
ProtocolIE-ID ::= 316
ProtocolIE-ID ::= 251

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id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
id-PrimCCPCH-RSCP-DL-PC-RqstTDD
id-HSDSCH-FDD-Information
id-HSDSCH-FDD-Information-Response
id-HSDSCH-FDD-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-Update-Information
id-HSPDSCH-RL-ID
id-HSDSCH-MACdFlows-to-Add
id-HSDSCH-MACdFlows-to-Delete
id-Angle-Of-Arrival-Value-LCR
id-TrafficClass
id-TFCI-PC-SupportIndicator
id-Qth-Parameter
id-PDSCH-RL-ID
id-TimeSlot-RL-SetupRspTDD
id-GERAN-Cell-Capability
id-GERAN-Classmark
id-DSCH-InitialWindowSize
id-UL-Synchronisation-Parameters-LCR
id-SNA-Information
id-MACHs-ResetIndicator
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD
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
id-UL-TimingAdvanceCtrl-LCR
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD
id-HS-SICH-Reception-Quality
id-HS-SICH-Reception-Quality-Measurement-Value
id-HSSICH-Info-DM-Rprt
id-HSSICH-Info-DM-Rqst
id-HSSICH-Info-DM
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD

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ProtocolIE-ID ::= 150
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ProtocolIE-ID ::= 452
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ProtocolIE-ID ::= 502

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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	ProtocolIE-ID ::= 520
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
id-RL-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 527
id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD	ProtocolIE-ID ::= 528
id-RL-ReconfigurationResponseTDD-RL-Information	ProtocolIE-ID ::= 529
id-Satellite-Almanac-Information-ExtItem	ProtocolIE-ID ::= 530
id-HSDSCH-Information-to-Modify-Unsynchronised	ProtocolIE-ID ::= 533
id-TnIQos	ProtocolIE-ID ::= 534
id-RTLloadValue	ProtocolIE-ID ::= 535
id-NRTLloadInformationValue	ProtocolIE-ID ::= 536
id-CellPortionID	ProtocolIE-ID ::= 537
id-UEMeasurementType	ProtocolIE-ID ::= 540
id-UEMeasurementTimeslotInfoHCR	ProtocolIE-ID ::= 541
id-UEMeasurementTimeslotInfoLCR	ProtocolIE-ID ::= 542
id-UEMeasurementReportCharacteristics	ProtocolIE-ID ::= 543
id-UEMeasurementParameterModAllow	ProtocolIE-ID ::= 544
id-UEMeasurementValueInformation	ProtocolIE-ID ::= 545