TSG RAN Meeting #28 **RP-050228**
Quebec, Canada, 01 - 03 June 2005
Title **CRs (Rel-6 cat. B and cat. C) on MBMS**

Source **TSG RAN WG3**
Agenda Item **8.4**

RAN3 Tdoc	Spec	CR	Rev	Cat	curr. Vers.	new Vers.	Rel	Work item	Title
R3-050704	25.433	1124	1	C	6.5.0	6.6.0	Rel-6	MBMS-RAN	Synchronisation for MBMS p-t-m Transmissions from Multiple Cells (Simulcast)
R3-050817	25.402	50	1	C	6.2.0	6.3.0	Rel-6	MBMS-RAN	Synchronisation for MBMS p-t-m Transmissions from Multiple Cells (Simulcast)
R3-050818	25.423	1081		B	6.5.0	6.6.0	Rel-6	MBMS-RAN	Direct Information Transfer for MBMS purposes

3GPP TSG-RAN WG3 Meeting #47
Athens, Greece, 9th – 13th May 2005

TDoc ⌘R3-050817

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.402** **CR** **050** ⌘ **rev** **1** ⌘ Current version: **6.2.0** ⌘

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Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Synchronisation for MBMS p-t-m Transmissions from Multiple Cells (Simulcast)
Source:	⌘	RAN3
Work item code:	⌘	MBMS-RAN
Date:	⌘	13/05/2005
Category:	⌘	**C**
Release:	⌘	Rel-6

Use one 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 one of the following releases:
Ph2 (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)
Rel-7 (Release 7)

Reason for change:	⌘	For support of MBMS soft combining in the UE, relative timing difference of transmissions from different cells has to be limited. This CR introduces a description into 25.402 how this target may be reached.
Summary of change:	⌘	Stage 2 description included in Section 11.2 and 11.3
Consequences if not approved:	⌘	No functional description available for 'Synchronisation for MBMS Transmissions'

Clauses affected:	⌘	5, 11.2 and 11.3

Other specs affected:	⌘	Y	N		⌘	
		X		Other core specifications		25.331CR2614, 25.433CR1124r1
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

5 Synchronisation Counters and Parameters

This clause defines counters and parameters used in the different UTRAN synchronisation procedures.

The parameters used only by FDD has been indicated with the notation [FDD – parameter].

BFN Node B Frame Number counter. This is the Node B common frame number counter. [FDD -BFN is optionally frequency-locked to a Network synchronisation reference]. Range: 0 .. 4095 frames.

RFN RNC Frame Number counter. This is the RNC node common frame number counter. RFN is optionally frequency-locked to a Network synchronisation reference. Range: 0 .. 4095 frames.

SFN Cell System Frame Number counter. SFN is sent on BCH. SFN is used for paging groups and system information scheduling etc.
In FDD SFN = BFN adjusted with T_cell.
In TDD, if Inter Node B synchronisation port is used, SFN is locked to the BFN (i.e. SFN mod 256 = BFN mod 256).
Range: 0 .. 4095 frames.

CFN Connection Frame Number (counter). CFN is the frame counter used for the L2/transport channel synchronisation between UE and UTRAN. A CFN value is associated to each TBS and it is passed together with it through the MAC-L1 SAP. CFN provides a common frame reference (at L2) to be used e.g. for synchronised transport channel reconfiguration (see [2] and [3]).

The duration of the CFN cycle is longer than the maximum allowed transport delay between MAC and L1 (in UTRAN side, between SRNC and Node B, because the L1 functions that handle the transport channel synchronisation are in the Node B).
Range: 0 .. 255 frames. When used for PCH the range is 0 .. 4095 frames.

Frame Offset Frame Offset is a radio link specific L1 parameter used to map the CFN, used in the transport channel, into the SFN that defines the specific radio frame for the transmission on the air interface.

At the L1/L2 interaction, the mapping is performed as:

- SFN mod 256 = (CFN + Frame Offset) mod 256 (from L2 to L1) (5.1);

- CFN = (SFN - Frame Offset) mod 256 (from L1 to L2) (5.2).

The resolution of all three parameters is 1 frame. Frame Offset and CFN have the same range (0…255) and only the 8 least significant bits of the SFN are used. The operations above are modulo 256.

In the UTRAN, the Frame Offset parameter is calculated by the SRNC and provided to the Node B.

OFF The parameter OFF is calculated by the UE and reported to the UTRAN only when the UTRAN has requested the UE to send this parameter. In the neighbouring cell list, the UTRAN indicates for each cell if the Frame Offset is already known by the UTRAN or shall be measured and reported by the UE.

OFF has a resolution of 1 frame and a range of 0 .. 255.

Five different cases are discerned related to the determination of the OFF value by the UE:

1. The UE changes from common channel state to dedicated channel state: 1 RL.
   In this case OFF is zero.

2. [FDD -The UE changes from common channel state to dedicated channel state: several RL's.

OFF is in this case defined as being the difference between SFN of the candidate cells and the SFN of the camping cell. Again the UE sets OFF to zero for the cell to which the UE sends an UL RRC message (cell #1). For cells #2 to n, the UE sets OFF to the difference between the SFN of cell#2,n and the SFN of cell#1.
This could be seen as if a virtual dedicated physical channel (DPCH) already is aligned with cell #1].

3. The UE adds another RL or moves to another cell in dedicated channel state.
   OFF is in this case defined as being the time difference between the CFN and the SFN of the cell in which the RL is to be added. In case this difference cannot be measured, a value as in [FDD - 13] [TDD - 14] shall be reported instead.

4. The UE is coming from another RAN and goes to dedicated channel state: 1 RL.
   This case is identical to case 1).

5. [FDD - The UE is coming from another RAN or another frequency in the same RAN and goes to dedicated channel state: several RL's.
   This case is identical to case 2), with one exception: OFF will not be zero for the cell to which the UE sends an UL RRC message (the measurement information will be received via the CN in this case) but for a reference cell selected by the UE. All other reported OFF values will be relative to the SFN of this selected reference cell].

[FDD – $DOFF_{FDD}$] The $DOFF_{FDD}$ (FDD Default DPCH Offset value) is used to define Frame Offset and Chip Offset at first RL setup. The $DOFF_{FDD}$ is used for both the DPCH and the F-DPCH. The resolution should be good enough to spread out load over Iub and load in Node B (based on certain load distributing algorithms). In addition it is used to spread out the location of Pilot Symbol in order to reduce the peak DL power since Pilot symbol is always transmitting at the fixed location within a slot (the largest number of chips for one symbol is 512 chips).

The SRNC sends a $DOFF_{FDD}$ parameter to the UE when the new RL will make the UE change its state (from Cell_FACH state or other when coming from another RAN) to Cell_DCH state.

Resolution: 512 chips; Range:0 .. 599 (< 80 ms).

[TDD – $DOFF_{TDD}$] The $DOFF_{TDD}$ (TDD Default DPCH Offset value) is used to define Frame Offset at first RL setup, in order to spread out load over /Iur and load in Node B (based on certain load distributing algorithms).

The SRNC sends a $DOFF_{TDD}$ parameter to the UE when the new RL will make the UE change its state (from Cell_FACH state or other when coming from another RAN) to the Cell_DCH state.

Resolution: 1 frame; Range: 0 .. 7 frames.

[FDD – Chip Offset] The Chip Offset is used as offset for the DL DPCH or the F-DPCH relative to the PCCPCH timing. The Chip Offset parameter has a resolution of 1 chip and a range of 0 .. 38399 (< 10 ms).

The Chip Offset parameter is calculated by the SRNC and provided to the Node B.

Frame Offset + Chip Offset (sent via NBAP) are in Node B rounded together to closest 256 chip boundary. The 256 chip boundary is used regardless of the used spreading factor, also when the spreading factor is 512. The rounded value (which is calculated in Node B) controls the DL DPCH air-interface timing or the F-DPCH air-interface timing.

The "Frame Offset + Chip Offset" 256 chip boundary rounding rules for Node B to consider for each DL DPCH and each F-DPCH are:

1. IF (Frame Offset x 38 400 + Chip Offset) modulo 256 [chips] = {1..127} THEN round (Frame Offset x 38 400 + Chip Offset) modulo 256 frames down to closest 256 chip boundary.

2. IF (Frame Offset x 38 400 + Chip Offset) modulo 256 [chips] = {128..255} THEN round (Frame Offset x 38 400 + Chip Offset) modulo 256 frames up to closest 256 chip boundary.

3. IF (Frame Offset x 38 400 + Chip Offset) modulo 256 [chips] = 0 THEN "Frame Offset x 38 400 + Chip Offset" is already on a 256 chip boundary.

[FDD – DPCH Frame Offset]

The DPCH Frame Offset is used as offset for the DL DPCH or the F-DPCH relative to the PCCPCH timing at both the Node B and the UE. The DPCH Frame Offset parameter has a resolution of 256 chips and a range of 0 .. 38144 chips (< 10 ms).

The DPCH Frame Offset is equivalent to Chip Offset rounded to the closest 256 chip boundary. It is calculated by the SRNC and sent to the UE by the SRNC for each radio link in the active set.

The DPCH Frame Offset controls the DL DPCH air-interface timing or the F-DPCH air-interface timing. It enables the DL DPCHs or the F-DPCH for radio links in the Active Set to be received at the UE at approximately the same time, which can then be soft combined during soft handover.

[FDD – S-CCPCH Frame Offset]

The S-CCPCH Frame Offset is used as offset for the S-CCPCH relative to the P-CCPCH timing of the same cell at the Node B. It may be applied to S-CCPCHs carrying MTCH. The purpose of S-CCPCH Frame Offset is enabling of soft combining of MBMS data at the UE, in particular for the case of long-lived MBMS sessions.

The S-CCPCH Frame Offset can take the values 0, 10, 20 or 40msecs.

[FDD –Tm]

The reported Tm parameter has a resolution of 1 chip and a range of 0 .. 38399. The Tm shall always be sent by the UE.

Five different cases are discerned related to the determination of the Tm value by the UE:

1. The UE changes from common channel state to dedicated channel state: 1 RL.
   In this case the Tm will be zero.

2. The UE changes from common channel state to dedicated channel state: several RL's.
   Tm is in this case defined as being the time difference between the received PCCPCH path of the source cell and the received PCCPCH paths of the other target cells. Again the UE sets Tm to zero for the cell to which the UE sends an UL RRC message (cell #1). For cells #2 to n, the UE sets Tm to the time difference of the PCCPCH reception timing of cell#2,n from the PCCPCH reception timing of cell#1.

3. The UE adds another RL in dedicated channel state (macro-diversity).
   Tm is in this case defined as being the time difference between "$T_{UETX} - T_o$" and the earliest received PCCPCH path of the target cell. T_{UETX} is the time when the UE transmits an uplink DPCCH frame, hence "$T_{UETX} - T_o$" is the nominal arrival time for the first path of a received DPCH.

4. The UE is coming from another RAN and goes to dedicated channel state: 1 RL.
   This case is identical to case 1.

5. The UE is coming from another RAN or another frequency in the same RAN and goes to dedicated channel state: several RL's.
   This case is identical to case 2, with one exception: Tm will not be zero for the cell to which the UE sends an UL RRC message (the measurement information will be received via the CN in this case) but for a reference cell selected by the UE. All other reported Tm values will be relative to the timing of the PCCPCH in this cell.

[FDD – T_cell] T_cell represents the Timing delay used for defining the start of SCH, CPICH and the DL Scrambling Code(s) in a cell relative BFN. The main purpose is to avoid having overlapping SCHs in different cells belonging to the same Node B. A SCH burst is 256 chips long. SFN in a cell is delayed T_cell relative BFN.

Resolution: 256 chips. Range: 0 .. 9 x 256 chips.

T1 RNC specific frame number (RFN) that indicates the time when RNC sends the DL NODE SYNCHRONISATION control frame through the SAP to the transport layer.

Resolution: 0.125 ms; Range: 0 .. 40959.875 ms.

T2 Node B specific frame number (BFN) that indicates the time when Node B receives the correspondent DL NODE SYNCHRONISATION control frame through the SAP from the transport layer.

Resolution: 0.125 ms; Range: 0 .. 40959.875 ms.

T3 Node B specific frame number (BFN) that indicates the time when Node B sends the UL NODE SYNCHRONISATION control frame through the SAP to the transport layer.

Resolution: 0.125 ms; Range: 0 .. 40959.875 ms.

T4 RNC specific frame number (RFN) that indicates the time when RNC receives the UL NODE SYNCHRONISATION control frame. Used in RNC locally. Not standardised over Iub.

TOAWS TOAWS (Time of Arrival Window Startpoint) is the window startpoint. DL DATA FRAMES are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE) (see Figure 10). A data frame arriving before TOAWS gives a TIMING ADJUSTMENT control frame response.
The resolution is 1 ms, the range is: {0 .. CFN length/2 –1 ms}.

TOAWE TOAWE (Time of Arrival Window Endpoint) is the window endpoint. DL DATA FRAMES are expected to be received before this window endpoint (see Figure 10). TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWE gives a TIMING ADJUSTMENT control frame response.
The resolution is 1 ms, the range is: {0 .. CFN length –1 ms}.

LTOA LTOA (Latest Time of Arrival) is the latest time instant a Node B can receive a data frame and still be able to process it. Data frames received after LTOA can not be processed (discarded). LTOA is defined internally in Node B to be a processing time before the data frame is sent in air-interface. The processing time (Tproc) could be vendor and service dependent.
LTOA is the reference for TOAWE (see Figure 14).

TOA TOA (Time of Arrival) is the time difference between the TOAWE and when a data frame is received. A positive TOA means that data frames are received before TOAWE, a negative TOA means that data frames are received after TOAWE. Data frames that are received after TOAWE but before LTOA are processed by Node B.
TOA has a resolution of 125 μs. TOA is positive when data frames are received before TOAWE (see Figure 12).
The range is: {0 .. +CFN length/2 –125 μs}.
TOA is negative when data frames are received after TOAWE.
The range is: {–125 μs .. –CFN length/2}.

11 MBMS related Transport Channel Synchronisation

11.1 General

Point-to-multipoint transmission is used to transfer MBMS specific control/user plane information between the network and several UEs in RRC Connected or Idle Mode. In p-t-m mode, FACH is used as a transport channel for MTCH and MCCH. S-CCPCH is used as a physical channel for FACH carrying MTCH or MCCH.

11.2 FDD MBMS related Transport Channel Synchronisation

For support of MBMS soft combining in the UE, relative timing difference of MTCH transmissions from different cells respectively from different Node Bs has to be limited.

In the intra-Node B case, relative timing difference of MTCH transmissions is inherently controllable via S-CCPCH timing:

- S-CCPCH CFNs have a configured timing difference relative to the P-CCPCH of the cell (e.g. *FDD SCCPCH Offset* IE [3])
- P-CCPCHs of all cells in a Node B are based on the BFN (and linked via *T Cell* IE [3]).

For the inter-Node B case synchronisation of MTCH transmissions from different cells in different Node Bs may be achieved and maintained as follows:

1. RNC-Node B Node synchronisation (as described in chapter 6)
   After carrying out this procedure, RNC is able to calculate BFN offsets assuming that the DL and UL propagation delay have the same value. Since, for every cell the relative timing of P-CCPCHs/SFNs is known to CRNC (as *T Cell* is known in CRNC) based on this measurement

2. Calculations for Initial Uu-Timing Alignment of MTCH transmission on S-CCPCHs
   Taking into account that transmission of a certain MTCH PDU has to start at CFNmodTTI=0, S-CCPCH timing offsets can be chosen in a way that the relative timing offset of the same MTCH PDU can be minimised. S-CCPCH timing offsets can be created by combining *FDD SCCPCH Offset* (roughly in the range of 0..10msec [3]) and *FDD S-CCPCH Frame Offset* (10msec, 20msec or 40msec; 0msec in case IE not present [3]) and will be associated with those S-CCPCHs carrying MTCH at the time of set up (i.e. at COMMON TRANSPORT CHANNEL SETUP REQUEST [3]).
   Initial Timing Alignment for MTCH Transmission is depicted in figure X below.

3. Maintenance of Uu-Timing Alignment of MTCH transmissions on S-CCPCHs
   After S-CCPCHs have been established, NodeBs timing difference may increase due to drifting Node B time reference (Node B clock). Increasing differences in relative timing may be detected by the RNC when periodically performing RNC-NodeB Node synchronisation measurements. In case time differences are growing unacceptably large, RNC may decide to either re-schedule the MTCH PDUs to the existing S-CCPCHs (granularity: 1TTI) or to delete and re-establish the corresponding S-CCPCHs (granularity: 256 chips when using *FDD SCCPCH Offset [3]*).

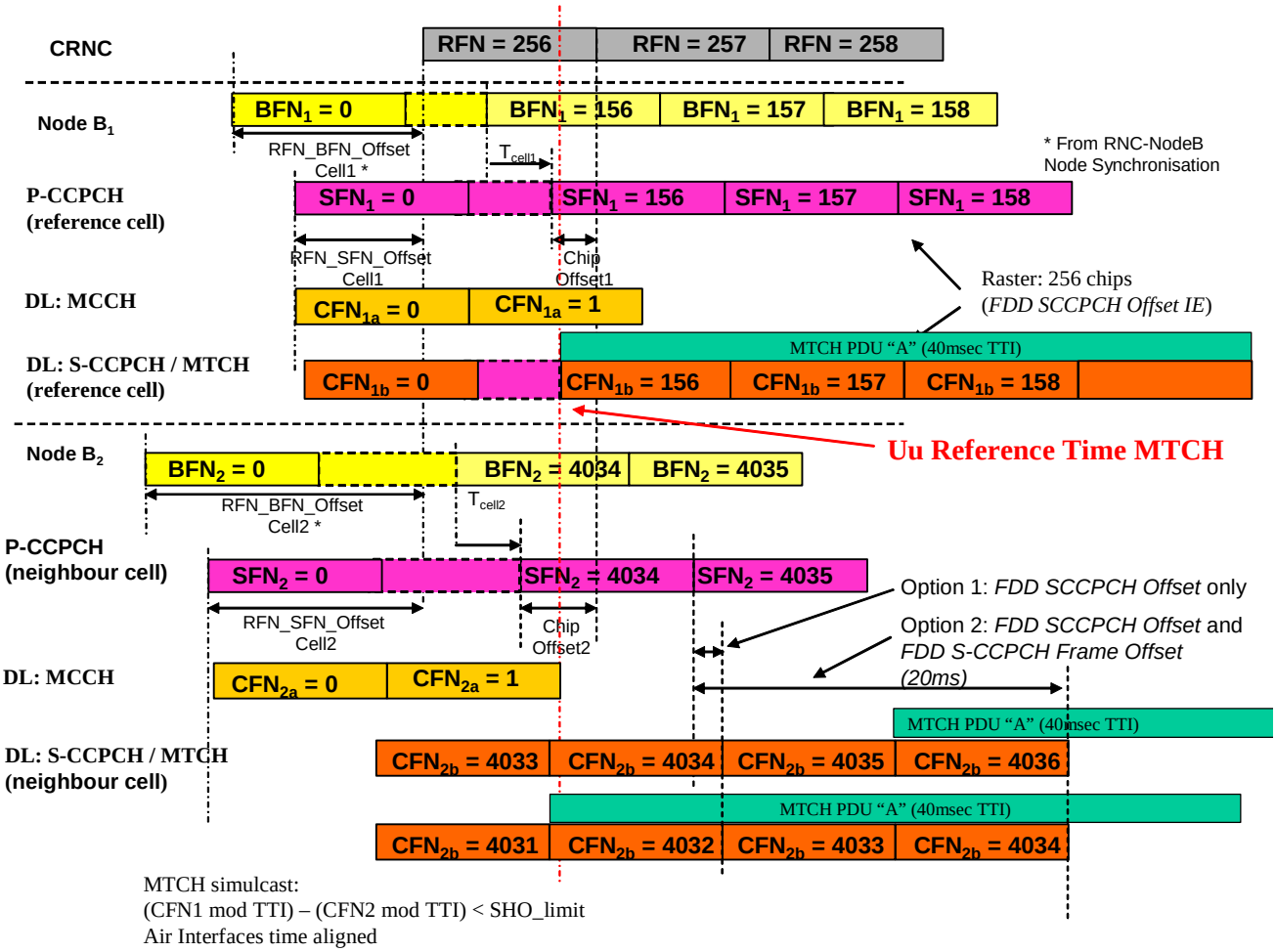

Figure X: Initial Timing Alignment for MTCH Transmission
(Example: MCCH and MTCH on separate S-CCPCH; 40msec TTI on MTCH)

11.3 TDD MBMS related Transport Channel Synchronisation

Soft combining of MBMS related transmissions in the UE may be supported by those TDD Radio Interface Synchronisation schemes depicted in section 8.3.

3GPP TSG-RAN3 Meeting#47
Athens, Greece, 9 – 13 May 2005

Tdoc ⌘R3-050818

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.423** **CR** **1081** ⌘ **rev** **-** ⌘ Current version: **6.5.0** ⌘

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Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	Direct Information Transfer for MBMS Purposes
Source:	⌘	RAN3
Work item code:	⌘	MBMS-RAN
Date:	⌘	16/05/2005
Category:	⌘	**B**
Release:	⌘	Rel-6

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R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)
Rel-7 (Release 7)

Reason for change: ⌘

This Change request introduces a generic mechanism for providing Preferred Frequency Layer Indication and Channel Type Information over Iur from DRNC to SRNC.

This has been realised by defining a generic class 2 procedure carrying this information which might be extendended for further usage.

The Frequency Layer Indication is needed at Session Start in the SRNC for dedicated notification to UEs in CELL_DCH after the DRNC has decided the PFL.

The Channel Type Information is needed at Session Start in the SRNC for dedicated notification to UEs in CELL_DCH after the DRNC has decided the channel type. In addition, the Channel Type Information is needed in the SRNC when the channel type has been changed in the DRNS.

Summary of change: ⌘

General:
- A new generic class 2 procedure Direct Information Transfer was added.
- MBMS Channel Type Reconfiguration Indication was removed.

Detail:
Section 7:
- A new function “Direct Information Transfer” was added.
- A new function MBMS Preferred Frequency Layer Indication was added.
- A new class 2 procedure Direct Information Transfer was added.
- Existing procedure “MBMS Channel Type Reconfiguration” was removed.

Section 8:

		- New paragraphs for preferred frequency layer indication in RL setup/addition response messages were added. - In 8.5.X, Direct Information Transfer was added. - A new class 2 procedure Direct Information Transfer was added. - MBMS Channel Type Reconfiguration was removed from 8.6.3. Section 9: - *Active MBMS Bearer Service List* IE for RL setup/addition response/failure messages was modified to contain *Preferred Frequency Layer* IE. In addition, this IE was removed from the *Unsuccessful RL Information Response* IE in failure messages. - *Provided Information* IE contained in Direct Information Transfer message was made to have two optional values. 1. MBMS Channel Type Information 2. MBMS Preferred Frequency Layer Information – Corresponding ASN.1 was changed. **Impact analysis** This CR has isolated impact on the previous version of the specification because the chages effect only MBMS function.
Consequences if not approved:	⌘	Dedicated notification for Cell_DCH UE will have some problems.

Clauses affected:	⌘	7, 8.1, 8.3.1, 8.3.2, 8.5.X (new) 8.6.3 (removed), 9.1.4, 9.1.5, 9.1.7, 9.1.8, 9.1.X (new), 9.1.69 (removed), 9.2.1.X (new), 9.2.1.Y (new), 9.2.1.Z (new), 9.3.2, 9.3.3, 9.3.4, 9.3.6
Other specs Affected:	⌘	Y / N Other core specifications ⌘ X Test specifications X O&M Specifications
Other comments:	⌘	

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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.
- Tracing. This function allows the SRNC to activate or deactivate trace in a DRNC.
- MBMS UE Linking/De-linking. This function allows the SRNC to provide/update/remove the UE Link to/in/from the DRNC.
- MBMS URA Linking/De-linking. This function allows the SRNC to provide/update/remove the URA Link to/in/from the DRNC.

- MBMS Channel Type Indication. This function allows the DRNC to indicate to the SRNC the selected channel type for an MBMS bearer service within ~~a~~ certain cells in the DRNS.

- MBMS Preferred Frequency Layer Indication. This function allows the DRNC to indicate to the SRNC the preferred frequency layer for an MBMS bearer service within certain cells in the DRNS.

- Direct Information Transfer. This function allows an RNC to transfer information to another RNC.

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-emptioni) 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
Trace	a) Iur Invoke Trace b) Iur Deactivate Trace

Function	Elementary Procedure(s)
MBMS UE Linking/De-linking	a) Common Transport Channel Resources Initiation b) Radio Link Setup c) Downlink Signalling Transfer d) MBMS Attach e) MBMS Detach
MBMS Channel Type Indication	a) ~~MBMS Channel Type Reconfiguration~~Direct Information Transfer b) Uplink Signalling Transfer c) Radio Link Setup d) Radio Link Addition e) Common Transport Channel Resources Initiation
MBMS Preferred Frequency Layer Indication	a) Direct Information Transfer b) Radio Link Setup d) Radio Link Addition
MBMS URA Linking/De-linking	a) Downlink Signalling Transfer b) MBMS Attach c) MBMS Detach
Direct Information Transfer	a) Direct Information Transfer

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

Elementary Procedure	Initiating Message
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
MBMS Attach	MBMS ATTACH COMMAND
MBMS Detach	MBMS DETACH COMMAND
~~MBMS Channel Type Reconfiguration~~	~~MBMS CHANNEL TYPE RECONFIGURATION 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
Iur Invoke Trace	IUR INVOKE TRACE
Iur Deactivate Trace	IUR DEACTIVATE TRACE
Direct Information Transfer	DIRECT INFORMATION TRANSFER

********Unchanged Parts Removed********

8.3 Dedicated Procedures

8.3.1 Radio Link Setup

8.3.1.1 General

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

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

8.3.1.2 Successful Operation

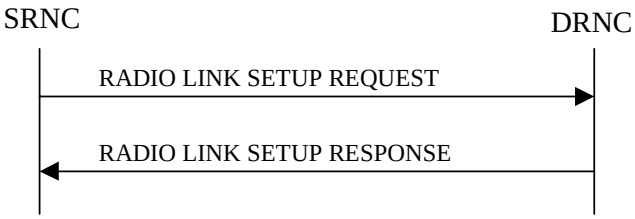

Figure 5: Radio Link Setup procedure: Successful Operation

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

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

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

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

********Unchanged Parts Removed********

MBMS Handling:

If the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall perform the UE Linking as specified in [50], section 5.1.6. If the UE Link is currently stored in the UE Context or the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message and if an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in some of the cells identified by the *C-ID* IEs in the RADIO LINK SETUP REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE in the concerned *RL Information Response* IEs in the RADIO LINK SETUP RESPONSE message.

If the UE Link is currently stored in the UE Context or the *MBMS Bearer Service List* IE is included in the RADIO LINK SETUP REQUEST message and if an MBMS preferred frequency layer for some active MBMS bearer services contained in the UE Link is set in some of the cells identified by the *C-ID* IEs in the RADIO LINK SETUP REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Preferred Frequency Layer* IE in the concerned *RL Information Response* IEs in the RADIO LINK SETUP RESPONSE message.

********Unchanged Parts Removed********

8.3.2 Radio Link Addition

8.3.2.1 General

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

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

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

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

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

8.3.2.2 Successful Operation

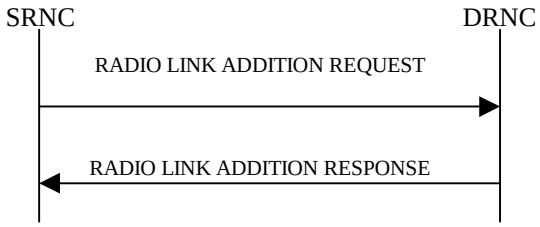

Figure 7: Radio Link Addition procedure: Successful Operation

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

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

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

*********Unchanged Parts Removed*********

MBMS Handling:

If the UE Link is currently stored in the UE Context and an MBMS session for some MBMS bearer services contained in the UE Link is ongoing in some of the cells identified by the *C-ID* IEs in the RADIO LINK ADDITION REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Transmission Mode* IE in the concerned *RL Information Response* IEs in the RADIO LINK ADDITION RESPONSE message.

If the UE Link is currently stored in the UE Context and an MBMS preferred frequency layer for some active MBMS bearer services contained in the UE Link is set in some of the cells identified by the *C-ID* IEs in the RADIO LINK ADDITION REQUEST message, the DRNC shall include for each of these active MBMS bearer services in the *Active MBMS Bearer Service List* IE the *Preferred Frequency Layer* IE in the concerned *RL Information Response* IEs in the RADIO LINK ADDITION RESPONSE message.

*********Unchanged Parts Removed*********

8.5.9 Information Exchange Failure

8.5.9.1 General

This procedure is used by a RNC to notify another that the information exchange it previously requested using the Information Exchange Initiation can no longer be reported.

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

8.5.9.2 Successful Operation

Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC_2 to the RNC_1, to inform the RNC_1 that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The RNC_2 shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the RNC_1 when initiating the information exchange with the Information Exchange Initiation procedure, and the RNC_2 shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

8.5.9.2.1 Successful Operation for Iur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

8.5.X Direct Information Transfer

8.5.X.1 General

This procedure is used by an RNC to transfer information to another RNC spontaneously.

This procedure shall use the connectionless mode of signalling bearer.

8.5.X.2 Successful Operation

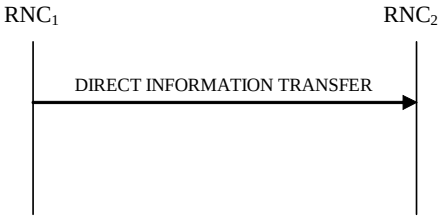

Figure X: Direct Information Transfer procedure, Successful Operation

The procedure is initiated with an DIRECT INFORMATION TRANSFER message sent from RNC_1 to RNC_2.

If the initiating RNC of this procedure is RNC_1, RNC_1 shall provide appropriate information in the *Provided Information* IE.

MBMS Channel Type Indication:

At the start time of a session for an MBMS bearer service, if the RNC_1 is in the DRNC role for some UEs whose UE Link contains the concerned MBMS bearer service and whose SRNC is RNC_2 and if the channel type is determined by the RNC_1 for certain cells in the DRNS, the procedure shall be initiated by the RNC_1 to the RNC_2. In this case, the RNC_1 shall include in the *Provided Information* IE the *Channel Type Information* IE in the DIRECT INFORMATION TRANSFER message.

During a session of an MBMS bearer service, if the RNC_1 is in the DRNC role for some UEs whose UE Link contains the concerned MBMS bearer service and whose SRNC is RNC_2, then the RNC_1 may initiate this procedure to indicate channel type change for the MBMS bearer service in certain cells. In this case, the RNC_1 shall include in the *Provided Information* IE the *Channel Type Information* IE in the DIRECT INFORMATION TRANSFER message.

The RNC_1 shall include the available information within the *PTM Cell List* IE, the *PTP Cell List* IE and/or the *Not Provided Cell List* IE in the *Channel Type Information* IE.

MBMS Preferred Frequency Layer Indication:

At the start time of a session for an MBMS bearer service, if the RNC_1 is in the DRNC role for at least one CELL_DCH UE whose UE Link contains the concerned MBMS bearer service and whose SRNC is RNC_2 and if the preferred frequency layer is determined by the RNC_1 for certain cells that host at least one of these CELL_DCH UEs whose SRNC is RNC_2, the procedure shall be initiated by the RNC_1 to the RNC_2. In this case, the RNC_1 shall include in the *Provided Information* IE the *Preferred Frequency Layer Information* IE in the DIRECT INFORMATION TRANSFER message.

If some of the cells controlled by RNC_1 that host at least one of these CELL_DCH UEs whose SRNC is RNC_2 are configured with different preferred frequencies, the *Additional Preferred Frequency* IE as well as *Default Preferred Frequency* IE shall be included in the *Preferred Frequency Layer Information* IE. In this case, for each preferred frequency different from the *Default Preferred Frequency* IE, one *Additional Preferred Frequency* IE shall be included containing at least one *Corresponding Cells* IE.

*********Unchanged Parts Removed*********

8.6.2 MBMS Detach

8.6.2.1 General

The MBMS Detach procedure is used by the SRNC to either delete a UE Link/URA Link in the DRNC or to inform DRNC about any removal of one or several MBMS bearer services in an already stored UE link or URA Link.

This procedure shall use the signalling bearer mode specified below.

8.6.2.2 Successful Operation

Figure 32: MBMS Detach procedure, Successful Operation

The SRNC initiates the procedure by sending the message MBMS DETACH COMMAND message to the DRNC.

When the UE is utilising one or more radio links in the DRNC, the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE Context in the DRNC is required. If the UE is not utilising any radio link, the message shall be sent using the connectionless service of the signalling bearer.

If no *UE State* IE is included in the message or the *UE State* IE is set to "CELL_FACH/CELL_PCH", the DRNC shall perform the UE De-linking as specified in [50], section 5.1.6.

If the *UE State* IE is set to "URA_PCH", the DRNC shall perform the URA De-linking as specified in [50], section 5.1.10.

8.6.2.3 Abnormal Conditions

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8.6.3 MBMS Channel Type Reconfiguration

8.6.3.1 General

The MBMS Channel Type Reconfiguration procedure is used by the DRNC to indicate the SRNC the channel type for the MBMS bearer service within a certain cell.

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

8.6.3.2 Successful Operation

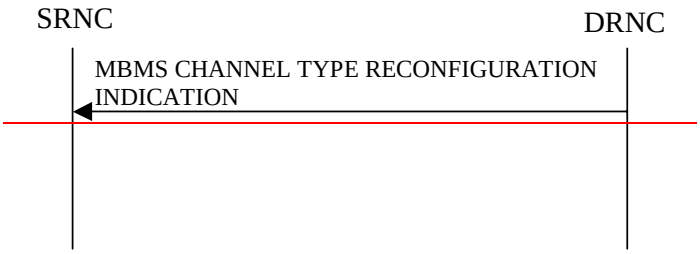

Figure 33: MBMS Channel Type Reconfiguration procedure, Successful Operation

The DRNC initiates the procedure by sending the message MBMS CHANNEL TYPE RECONFIGURATION INDICATION to the SRNC.

If the procedure is initiated by the DRNC due to the channel type change for the MBMS bearer service, the DRNC shall include *Affected UE Information for MBMS* IE in the message MBMS CHANNEL TYPE RECONFIGURATION INDICATION to the SRNC.

If at the start time of a session for the MBMS bearer service "PTP" or "Not Provided" transmission mode is determined by the DRNC, the procedure shall be initiated. The SRNC shall assume "PTM" transmission mode if no MBMS CHANNEL TYPE RECONFIGURATION INDICATION is received from the DRNC.

8.6.3.3 Abnormal Conditions

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********Unchanged Parts Removed********

9.1.4 RADIO LINK SETUP RESPONSE

9.1.4.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
RL Information Response		*1..<maxnoofRLs>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>Received Total Wide Band Power	M		9.2.2.35A		–	
>Secondary CCPCH Info	O		9.2.2.37B		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>CHOICE *Diversity Indication*	M				–	
>>Combining					–	
>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>Non Combining or First RL					–	
>>>DCH Information Response	M		9.2.1.16A		–	
>>>E-DCH FDD Information Response	M		9.2.2.4C		YES	ignore
>SSDT Support Indicator	M		9.2.2.43		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>Primary Scrambling Code	O		9.2.1.45		–	
>UL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	–	
>DL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	–	
>Primary CPICH Power	M		9.2.1.44		–	
>DSCH Information	O		DSCH		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Response			FDD Information Response 9.2.2.13B			
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>PC Preamble	M		9.2.2.27a		–	
>SRB Delay	M		9.2.2.39A		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>TFCI PC Support Indicator	O		9.2.2.46A		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore
>Secondary CPICH Information	O		9.2.2.38A		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>Active MBMS Bearer Service List		*0..<maxnoofActiveMBMS>*			GLOBAL	ignore
>>TMGI	M		9.2.1.80		–	
>>Transmission Mode	~~M~~O		9.2.1.81		–	
>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9A		YES	ignore
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
DSCH-RNTI	O		9.2.1.26Ba		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.4.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
RL Information Response		*0..1*		Mandatory for 3.84Mcps TDD , not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info	M		9.2.3.13D		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	–	
>Cell Parameter ID	O		9.2.1.8		–	
>Sync Case	O		9.2.1.54		–	
>SCH Time Slot	C-Case2		9.2.1.51		–	
>SCTD Indicator	O		9.2.1.78		–	
>PCCPCH Power	M		9.2.1.43		–	
>Timing Advance Applied	M		9.2.3.12A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD	O		9.2.3.7B		–	
>UL CCTrCH Information		*0..<maxnoofCCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information	M		9.2.3.13C		–	
>>Uplink SIR Target CCTrCH	O		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information		*0..<maxnoofCCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information	M		9.2.3.2C			
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH Information Response		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		–	
>>DSCH Flow Control Information	M		9.2.1.26B		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>USCH Information Response		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Time Slot for SCH	C-Case1		Time Slot 9.2.1.56		YES	ignore
Uplink SIR Target	M		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
RL Information Response LCR		*0..1*		Mandatory for 1.28Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	M		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.13H		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.1.21A			
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	–	
>Cell Parameter ID	O		9.2.1.8		–	
>SCTD Indicator	O		9.2.1.78		–	
>PCCPCH Power	M		9.2.1.43		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD LCR	O		9.2.3.7F		–	
>UL CCTrCH Information LCR		*0..<maxnoofCCTrCHsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information LCR	M		9.2.3.13G		–	
>>Uplink SIR Target CCTrCH	O		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information LCR		*0..<maxnoofCCTrCHsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information LCR	M		9.2.3.2E			
>>>TSTD Indicator	M		9.2.3.13E		–	
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH Information Response LCR		*0 .. <maxnoofDSCHsLCR>*			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		–	
>>DSCH Flow Control Information	M		9.2.1.26B		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>USCH Information Response LCR		*0 .. <maxnoofUSCHsLCR>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>HCS Prio	O		9.2.1.30N		YES	ignore
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>Uplink Timing Advance Control LCR	M		9.2.3.13K		YES	ignore
HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
HS-DSCH Information Response	O		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
DSCH RNTI	O		9.2.1.26Ba		YES	ignore
Active MBMS Bearer Service List		*0..<maxnoofActiveMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	O~~M~~		9.2.1.81		–	
>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	

Condition	Explanation
Case2	The IE shall be present if *Sync Case* IE is equal to "Case2".
Case1	This IE shall be present if *Sync Case* IE is equal to "Case1".

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
maxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE for 3.84Mcps TDD.
maxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
maxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
maxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.5 RADIO LINK SETUP FAILURE

9.1.5.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
CHOICE *Cause Level*	M				YES	ignore
>General					–	
>>Cause	M		9.2.1.5		–	
>RL Specific					–	
>>Unsuccessful RL Information Response		*1..<maxnoofRLs>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
~~**>>>Active MBMS Bearer Service List**~~		~~*0..<maxnoofActiveMBMS>*~~			~~GLOBAL~~	~~ignore~~
~~>>>>TMGI~~	~~M~~		~~9.2.1.80~~		~~–~~	
~~>>>>Transmission Mode~~	~~M~~		~~9.2.1.81~~		~~–~~	
>>Successful RL Information Response		*0..<maxnoofRLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA Information	O		9.2.1.70B		–	
>>>SAI	M		9.2.1.52		–	
>>>Cell GAI	O		9.2.1.5A		–	
>>>UTRAN Access Point Position	O		9.2.1.70A		–	
>>>Received Total Wide Band Power	M		9.2.2.35A		–	
>>>Secondary CCPCH Info	O		9.2.2.37B		–	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		–	
>>>CHOICE *Diversity Indication*	M				–	
>>>>*Combining*					–	
>>>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>>>*Non Combining or First RL*					–	
>>>>>DCH Information Response	M		9.2.1.16A		–	
>>>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Primary CPICH Power	M		9.2.1.44		–	
>>>Primary Scrambling Code	O		9.2.1.45		–	
>>>UL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>DL UARFCN	O		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>DSCH Information Response	O		DSCH FDD Information Response 9.2.2.13B		YES	ignore
>>>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>>>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>>>PC Preamble	M		9.2.2.27a		–	
>>>SRB Delay	M		9.2.2.39A		–	
>>>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>>>TFCI PC Support Indicator	O		9.2.2.46A		YES	ignore
>>>HCS Prio	O		9.2.1.30N		YES	ignore
>>>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore
>>>Secondary CPICH Information	O		9.2.2.38A		YES	ignore
>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>>>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>>>Active MBMS Bearer Service List		*0..<maxnoofActiveMBMS>*			GLOBAL	ignore
>>>>TMGI	M		9.2.1.80		–	
>>>>Transmission Mode	~~M~~O		9.2.1.81		–	
>>>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9A		YES	ignore
>>DSCH-RNTI	O		9.2.1.26Ba		YES	ignore
>>HS-DSCH-RNTI	O		9.2.1.30P		YES	ignore
>>HS-DSCH Information Response	O		HS-DSCH FDD		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			Information Response 9.2.2.19b			
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

********Unchanged Parts Removed********

9.1.7 RADIO LINK ADDITION RESPONSE

9.1.7.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*1..<maxnoof RLs-1>*			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>Received Total Wide Band Power	M		9.2.2.35A		–	
>Secondary CCPCH Info	O		9.2.2.37B		–	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>CHOICE *Diversity Indication*	M				–	
>>*Combining*					–	
>>>RL ID	M		9.2.1.49	Reference RL ID	–	
>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>>*Non Combining*					–	
>>>DCH Information Response	M		9.2.1.16A		–	
>>>E-DCH FDD Information Response	O		9.2.2.4C		YES	ignore
>SSDT Support Indicator	M		9.2.2.43		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>PC Preamble	M		9.2.2.27a		–	
>SRB Delay	M		9.2.2.39A		–	
>Primary CPICH Power	M		9.2.1.44		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>TFCI PC Support Indicator	O		9.2.2.46A		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>HCS Prio	O		9.2.1.30N		YES	ignore
>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore
>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>Active MBMS Bearer Service List		*0..<maxnoof ActiveMBMS>*			GLOBAL	ignore
>>TMGI	M		9.2.1.80		–	
>>Transmission Mode	~~M~~O		9.2.1.81		–	
>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9.A		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.7.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
RL Information Response		*0..1*		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	O		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info	M		9.2.3.13D		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>PCCPCH Power	M		9.2.1.43		–	
>Timing Advance Applied	M		9.2.3.12A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD	O		9.2.3.7B		–	
>UL CCTrCH Information		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information	M		9.2.3.13C		–	
>DL CCTrCH Information		*0..<maxnoof CCTrCHs>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information	M		9.2.3.2C		–	
>>CCTrCH Maximum DL TX Power	O		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>>CCTrCH Minimum DL TX Power	O		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>DCH Information		0..1			–	
>>CHOICE *Diversity Indication*	M				–	
>>>Combining					–	
>>>>RL ID	M		9.2.1.49	Reference RL	–	
>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>Non Combining					–	
>>>>DCH Information Response	M		9.2.1.16A		–	
>DSCH Information Response		*0 .. <maxnoof DSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		–	
>>Transport Format Management	M		9.2.3.13		–	
>>DSCH Flow Control Information	M		9.2.1.26B		–	
>>CHOICE *Diversity Indication*	O				–	
>>>Non Combining					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>USCH Information Response		*0 .. <maxnoof USCHs>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Transport Format Management	M		9.2.3.13		–	
>>CHOICE *Diversity Indication*	O				–	
>>>Non Combining					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
RL Information Response LCR		*0..1*		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		–	
>URA Information	M		9.2.1.70B		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
>UL Time Slot ISCP Info LCR	M		9.2.3.13H		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.1.69			
>PCCPCH Power	M		9.2.1.43		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>Alpha Value	M		9.2.3.a		–	
>UL PhysCH SF Variation	M		9.2.3.13B		–	
>Synchronisation Configuration	M		9.2.3.7E		–	
>Secondary CCPCH Info TDD LCR	O		9.2.3.7F		–	
>UL CCTrCH Information LCR		*0..<maxnoofCCTrCHsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>UL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>UL Timeslot Information LCR	M		9.2.3.13G		–	
>DL CCTrCH Information LCR		*0..<maxnoofCCTrCHsLCR>*		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
>>DL DPCH Information LCR		*0..1*			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
>>>DL Timeslot Information LCR	M		9.2.3.2E		–	
>>>TSTD Indicator	M		9.2.3.13E		–	
>DCH Information Response	M		9.2.1.16A		–	
>DSCH Information Response LCR		*0 .. <maxnoofDSCHsLCR>*			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		–	
>>DSCH Flow Control Information	M		9.2.1.26B		–	
>>Binding ID	O		9.2.1.3		–	
>>Transport Layer Address	O		9.2.1.62		–	
>>Transport Format Management	M		9.2.3.13		–	
>USCH Information Response LCR		*0 .. <maxnoofUSCHsLCR>*			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		–	
>>Transport Format Management	M		9.2.3.13		–	
>>CHOICE *Diversity Indication*	O				–	
>>>Non Combining					–	
>>>>Binding ID	O		9.2.1.3		–	
>>>>Transport Layer Address	O		9.2.1.62		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>HCS Prio	O		9.2.1.30N		YES	ignore
>Uplink Timing Advance Control LCR	M		9.2.3.13K		YES	ignore
Active MBMS Bearer Service List		*0..<maxnoofActiveMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
>Transmission Mode	O~~M~~		9.2.1.81		–	
>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
maxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
maxnoofCCTrCHs	Maximum number of CCTrCHs for one UE for 3.84Mcps TDD.
maxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
maxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
maxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.8 RADIO LINK ADDITION FAILURE

9.1.8.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE *Cause Level*	M				YES	ignore
>General					–	
>>Cause	M		9.2.1.5		–	
>RL Specific					–	
>>Unsuccessful RL Information Response		*1..<maxnoof RLs-1>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
~~**>>>Active MBMS Bearer Service List**~~		~~*0..<maxnoof ActiveMBMS>*~~			~~GLOBAL~~	~~ignore~~
~~>>>>TMGI~~	~~M~~		~~9.2.1.80~~		~~–~~	
~~>>>>Transmission Mode~~	~~M~~		~~9.2.1.81~~		~~–~~	
>>Successful RL Information Response		*0..<maxnoof RLs-2>*			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA Information	O		9.2.1.70B		–	
>>>SAI	M		9.2.1.52		–	
>>>Cell GAI	O		9.2.1.5A		–	
>>>UTRAN Access Point Position	O		9.2.1.70A		–	
>>>Received Total Wide Band Power	M		9.2.2.35A		–	
>>>Secondary CCPCH Info	O		9.2.2.37B		–	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>>>CHOICE *Diversity Indication*	M				–	
>>>>Combining					–	
>>>>>RL ID	M		9.2.1.49	Reference RL ID	–	
>>>>>DCH Information Response	O		9.2.1.16A		YES	ignore
>>>>>E-DCH FDD Information Response	M		9.2.2.4C		YES	ignore
>>>>Non Combining					–	
>>>>>DCH Information Response	M		9.2.1.16A		–	
>>>>>E-DCH FDD Information Response	M		9.2.2.4C		YES	ignore
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed Loop Timing Adjustment Mode	O		9.2.2.3A		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Minimum DL TX Power	M		DL Power 9.2.1.21A		–	
>>>Neighbouring UMTS Cell Information	O		9.2.1.41A		–	
>>>Neighbouring GSM Cell Information	O		9.2.1.41C		–	
>>>Primary CPICH Power	M		9.2.1.44		–	
>>>PC Preamble	M		9.2.2.27a		–	
>>>SRB Delay	M		9.2.2.39A		–	
>>>Cell GA Additional Shapes	O		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	O		9.2.2.10B		YES	ignore
>>>TFCI PC Support Indicator	O		9.2.2.46A		YES	ignore
>>>HCS Prio	O		9.2.1.30N		YES	ignore
>>>Primary CPICH Usage For Channel Estimation	O		9.2.2.32A		YES	ignore
>>>E-DCH RL Set ID	O		RL Set ID 9.2.2.35		YES	ignore
>>>E-DCH FDD DL Control Channel Information	O		9.2.2.4D		YES	ignore
>>>Active MBMS Bearer Service List		*0..<maxnoof ActiveMBMS>*			GLOBAL	ignore
>>>>TMGI	M		9.2.1.80		–	
>>>>Transmission Mode	O~~M~~		9.2.1.81		–	
>>>>Preferred Frequency Layer	O		UARFCN 9.2.1.66		–	
>>>Initial DL DPCH Timing Adjustment	O		DL DPCH Timing Adjustment 9.2.2.9.A		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE.
maxnoofActiveMBMS	Maximum number of MBMS bearer services that are active in parallel.

9.1.8.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE *Cause Level*	M				YES	ignore
>General					–	
>>Cause	M		9.2.1.5		–	
>RL Specific					–	
>>Unsuccessful RL Information Response		*1*			YES	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

*********Unchanged Parts Removed*********

9.1.54 INFORMATION EXCHANGE FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Information Exchange ID	M		9.2.1.31A		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.X DIRECT INFORMATION TRANSFER

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
RNC-ID	M		9.2.1.50	ID of an RNC which initiates the procedure	YES	ignore
Provided Information	M		9.2.1.X		YES	ignore

*********Unchanged Parts Removed*********

9.1.68 MBMS DETACH COMMAND

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
MBMS Bearer Service List		*1..<maxnoofMBMS>*			GLOBAL	ignore
>TMGI	M		9.2.1.80		–	
CHOICE *UE State*	O				YES	ignore
>CELL_FACH/CELL_PCH					–	
>>D-RNTI	M		9.2.1.14		–	
>URA_PCH					–	
>>SRNC-ID	M		RNC-ID 9.2.1.50		–	
>>URA-ID	M		9.2.1.70		–	

Range bound	Explanation
maxnoofMBMS	Maximum number of MBMS bearer services that a UE can join.

~~9.1.69 MBMS CHANNEL TYPE RECONFIGURATION INDICATION~~

~~IE/Group Name~~	~~Presence~~	~~Range~~	~~IE Type and Reference~~	~~Semantics Description~~	~~Criticality~~	~~Assigned Criticality~~
~~Message Type~~	~~M~~		~~9.2.1.40~~		~~YES~~	~~ignore~~
~~Transaction ID~~	~~M~~		~~9.2.1.59~~		~~–~~	
~~DRNC-ID~~	~~M~~		~~RNC-ID 9.2.1.50~~		~~YES~~	~~ignore~~
~~C-ID~~	~~M~~		~~9.2.1.6~~		~~YES~~	~~ignore~~
~~TMGI~~	~~M~~		~~9.2.1.80~~		~~YES~~	~~ignore~~
~~Transmission Mode~~	~~M~~		~~9.2.1.81~~		~~YES~~	~~ignore~~
~~**Affected UE Information for MBMS**~~		~~*0..<maxnoofUEs>*~~			~~GLOBAL~~	~~ignore~~
~~>S-RNTI~~	~~M~~		~~9.2.1.53~~		~~–~~	

~~Range Bound~~	~~Explanation~~
~~*maxnoofUEs*~~	~~Maximum number of UEs to determine channel type switching~~

*********Unchanged Parts Removed*********

9.2.1.84 MBMS Bearer Service Full Address

This IE provides the full address of an MBMS Bearer Service otherwise identified by its TMGI.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Access Point Name	M		9.2.1.82	
IP Multicast Address	M		9.2.1.83	

9.2.1.X Provided Information

This IE contains the relevant data concerned the direct information transfer procedure. *Provided Information* IE shall include at least one of the following IEs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MBMS Channel Type Information	O		9.2.1.Y	
MBMS Preferred Frequency Layer Information	O		9.2.1.Z	

9.2.1.Y MBMS Channel Type Information

This IE contains the channel types of a MBMS Bearer Service indicated by *TMGI* IE in one or more cells. *MBMS Channel Type Information* IE shall include at least one *C-ID* IE and *Affected UE Information for MBMS* IE in the *PTM Cell List* IE, the *PTP Cell List* IE and/or *Not Provided Cell List* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TMGI	M		9.2.1.80	
PTM Cell List		*0..<maxnoofCells>*		
>C-ID	M		9.2.1.6	
>Affected UE Information for MBMS		*0..<maxnoofUEs>*		
>>S-RNTI	M		9.2.1.53	
PTP Cell List		*0.. <maxnoofCells>*		
>C-ID	M		9.2.1.6	
>Affected UE Information for MBMS		*0..<maxnoofUEs>*		
>>S-RNTI	M		9.2.1.53	
Not Provided Cell List		*0.. <maxnoofCells>*		
>C-ID	M		9.2.1.6	
>Affected UE Information for MBMS		*0..<maxnoofUEs>*		
>>S-RNTI	M		9.2.1.53	

Range Bound	Explanation
maxnoofCells	Maximum number of cells that can be indicated in the corresponding IE.
maxnoofUEs	Maximum number of S-RNTIs that can be indicated per cell in the respective IEs.

9.2.1.Z MBMS Preferred Frequency Layer Information

This IE contains the preferred frequency layer of a MBMS Bearer Service indicated by *TMGI* IE in one or more cells that host at least one CELL_DCH UE whose UE Link contains the concerned MBMS Bearer Service and whose SRNC is different from the CRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TMGI	M		9.2.1.80	
Preferred Frequency Layer Information				
>Default Preferred Frequency	M		UARFCN 9.2.1.66	
>Additional Preferred Frequency		*0..<maxnoofAddFreq>*		Preferred frequencies different from default preferred frequency
>>DL UARFCN	M		UARFCN 9.2.1.66	
>>Corresponding Cells		*1..<maxnoofCellsPerFreq>*		
>>>C-ID	M		9.2.1.6	

Range Bound	Explanation
maxnoofAddFreq	Maximum number of additional preferred frequencies different from default preferred frequency in an RNC.
maxnoofCellsPerFreq	Maximum number of cells whose preferred frequency is the same.

9.3.2 Elementary Procedure Definitions

```
********************** next change **********************

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,
    DirectInformationTransfer,
    DL-PowerControlRequest,
    DL-PowerTimeslotControlRequest,
    DownlinkSignallingTransferRequest,
    ErrorIndication,
    InformationExchangeFailureIndication,
    InformationExchangeInitiationFailure,
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeTerminationRequest,
    InformationReport,
    IurDeactivateTrace,
    IurInvokeTrace,
    MBMSAttachCommand,
    MBMSDetachCommand,
    MBMSChannelTypeReconfigurationIndication,
    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-iurDeactivateTrace,
    id-iurInvokeTrace,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation,
    id-dedicatedMeasurementReporting,
    id-dedicatedMeasurementTermination,
    id-directInformationTransfer,
    id-mBMSAttach,
    id-mBMSDetach,
    id-mBMSChannelTypeReconfiguration,
    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;

********************* next change **********************

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                            |
    iurInvokeTrace                                  |
    iurDeactivateTrace                              |
    mBMSAttach                                      |
    mBMSDetach                                      |
    mBMSChannelTypeReconfiguration
    directInformationTransfer

}

********************** next change **********************

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

directInformationTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      DirectInformationTransfer
    PROCEDURE ID            { procedureCode id-directInformationTransfer, ddMode common }
    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,
    Active-MBMS-Bearer-Service-ListFDD,
    Active-MBMS-Bearer-Service-ListFDD-PFL,
    Active-MBMS-Bearer-Service-ListTDD,
    Active-MBMS-Bearer-Service-ListTDD-PFL,
    AllocationRetentionPriority,
    AllowedQueuingTime,
    Allowed-Rate-Information,
    AlphaValue,
    AntennaColocationIndicator,
    BLER,
    SCTD-Indicator,
    BindingID,
    C-ID,
    C-RNTI,
    CCTrCH-ID,
    CFN,
    CGI,
    ClosedLoopMode1-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,
    Data-Description-IndicatorList,
    EDCH-FDD-Information,
    EDCH-FDD-InformationResponse,
    EDCH-FDD-Information-To-Modify,
    EDCH-FDD-DL-ControlChannelInformation,
    EDCH-DDI-Value,
    EDCH-MACdFlow-ID,
    EDCH-MACdFlow-Specific-InfoList,
    EDCH-MACdFlows-To-Delete,
    EDCH-Physical-Layer-Category,
    EDCH-RL-Indication,
    EDPCH-Information-FDD,
    E-RNTI,
    E-TFCS,
    E-TTI,
    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,
    Initial-DL-DPCH-TimingAdjustment-Allowed,
    InnerLoopDLPCStatus,
    L3-Information,
    SplitType,
    LengthOfTFCI2,
    LimitedPowerIncrease,
    MaximumAllowedULTxPower,
    MaxNrDLPhysicalchannels,
    MaxNrDLPhysicalchannelsTS,
    MaxNrOfUL-DPCHs,
    MaxNrTimeslots,
    MaxNrULPhysicalchannels,
    MACes-Guaranteed-Bitrate,
    MaxNr-Retransmissions-EDCH,
    MaxNrUL-EDPDCHs,
    MinULChannelisationCodeLength-EDCH-FDD,
    MeasurementFilterCoefficient,
    MeasurementID,
    MeasurementRecoveryBehavior,
```

```
    MeasurementRecoveryReportingIndicator,
    MeasurementRecoverySupportIndicator,
    MBMS-Bearer-Service-List,
    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,
    ProvidedInformation,
    PunctureLimit,
    QE-Selector,
    Qth-Parameter,
    RANAP-RelocationInformation,
    RB-Info,
    RL-ID,
    RL-Set-ID,
    RL-Specific-EDCH-Information,
    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,
    TMGI,
    TnlQos,
    ToAWE,
    ToAWS,
    TraceDepth,
    TraceRecordingSessionReference,
    TraceReference,
    TrafficClass,
```

```
    TransmitDiversityIndicator,
    TransportBearerID,
    TransportBearerRequestIndicator,
    TFCS,
    Transmission-Gap-Pattern-Sequence-Information,
    TransmissionMode,
    TransportFormatManagement,
    TransportFormatSet,
    TransportLayerAddress,
    TrCH-SrcStatisticsDescr,
    TSTD-Indicator,
    TSTD-Support-Indicator,
    UARFCN,
    UC-ID,
    UEIdentity,
    UEMeasurementType,
    UEMeasurementTimeslotInfoHCR,
    UEMeasurementTimeslotInfoLCR,
    UEMeasurementReportCharacteristics,
    UEMeasurementParameterModAllow,
    UEMeasurementValueInformation,
    UE-State,
    UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
    UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
    UL-DPCCH-SlotFormat,
    UL-DPDCHIndicatorEDCH,
    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,
    PrimaryCCPCH-RSCP-Delta
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,
    maxNrOfInterfaces,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLSets-1,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfULTs,
    maxNrOfDLTs,
    maxResetContext,
    maxResetContextGroup,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR,
    maxNrOfDLTsLCR,
    maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    maxNrOfHSSICHs,
    maxNrOfActiveMBMSServices,
    maxNrOfMBMSServices,
    maxNrOfUEs,
    maxNrofDDIs,
    maxNrofSigSeqERGHICH-1,


    id-Active-MBMS-Bearer-ServiceFDD,
    id-Active-MBMS-Bearer-ServiceFDD-PFL,
    id-Active-MBMS-Bearer-ServiceTDD,
    id-Active-MBMS-Bearer-ServiceTDD-PFL,
    id-Active-Pattern-Sequence-Information,
    id-AdjustmentRatio,
    id-AffectedUEInformationForMBMS,
    id-AllowedQueuingTime,
    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-ClosedLoopMode1-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,
```

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    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-DPCH-Power-Information-RL-ReconfPrepFDD,
    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-DRNC-ID,
    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,
```

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    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-EDPCH-Information,
    id-EDCH-RL-Indication,
    id-EDCH-FDD-Information,
    id-Serving-EDCHRL-Id,
    id-EDCH-FDD-DL-ControlChannelInformation,
    id-EDCH-FDD-InformationResponse,
    id-EDCH-MACdFlows-To-Add,
    id-EDCH-FDD-Information-To-Modify,
    id-EDCH-MACdFlows-To-Delete,
    id-EDPCH-Information-RLReconfRequest-FDD,
    id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd,
    id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
    id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd,
    id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd,
    id-EnhancedDSCHPC,
    id-EnhancedDSCHPCIndicator,
    id-Enhanced-PrimaryCPICH-EcNo,
    id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
    id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
    id-F-DPCH-Information-RL-ReconfPrepFDD,
    id-F-DPCH-Information-RL-SetupRqstFDD,
    id-GA-Cell,
    id-GA-CellAdditionalShapes,
    id-GSM-Cell-InfEx-Rqst,
    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-HSPDSCH-RL-ID,
    id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
    id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
    id-HSSICH-Info-DM-Rprt,
    id-HSSICH-Info-DM-Rqst,
```

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    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-Initial-DL-DPCH-TimingAdjustment,
    id-Initial-DL-DPCH-TimingAdjustment-Allowed,
    id-InnerLoopDLPCStatus,
    id-InterfacesToTraceItem,
    id-SplitType,
    id-LengthOfTFCI2,
    id-L3-Information,
    id-AdjustmentPeriod,
    id-ListOfInterfacesToTrace,
    id-MaxAdjustmentStep,
    id-MBMS-Bearer-Service-List,
    id-MBMS-Bearer-Service-List-InfEx-Rsp,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-MeasurementRecoveryBehavior,
    id-MeasurementRecoveryReportingIndicator,
    id-MeasurementRecoverySupportIndicator,
    id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
    id-NACC-Related-Data,
    id-Old-URA-ID,
    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-ProvidedInformation,
    id-Qth-Parameter,
    id-RANAP-RelocationInformation,
    id-ResetIndicator,
    id-EDCH-RLSet-Id,
    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,
```

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    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-Specific-EDCH-Information,
    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-Reporing-Object-RL-RestoreInd,
    id-RNC-ID,
    id-RxTimingDeviationForTA,
```

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    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-TMGI,
    id-TnlQos,
    id-TraceDepth,
    id-TraceRecordingSessionReference,
    id-TraceReference,
    id-TransmissionMode,
    id-TransportBearerID,
    id-TransportBearerRequestIndicator,
    id-TransportLayerAddress,
    id-UC-ID,
    id-ContextInfoItem-Reset,
    id-ContextGroupInfoItem-Reset,
    id-Transmission-Gap-Pattern-Sequence-Information,
    id-UEIdentity,
    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-UE-State,
    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,
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    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-DPDCHIndicatorEDCH,
    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-ID,
    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,
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    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,
    id-PrimaryCCPCH-RSCP-Delta

FROM RNSAP-Constants;

-- **************************************************************
--
-- RADIO LINK SETUP REQUEST FDD
--
-- **************************************************************

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

RadioLinkSetupRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-SRNC-ID                 CRITICALITY reject  TYPE RNC-ID                     PRESENCE mandatory} |
    { ID id-S-RNTI                  CRITICALITY reject  TYPE S-RNTI                     PRESENCE mandatory } |
    { ID id-D-RNTI                  CRITICALITY reject  TYPE D-RNTI                 PRESENCE optional   } |
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject  TYPE UL-DPCH-Information-RL-SetupRqstFDD    PRESENCE mandatory   } |
    { ID id-DL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject  TYPE DL-DPCH-Information-RL-SetupRqstFDD    PRESENCE optional } |
    { ID id-DCH-FDD-Information     CRITICALITY reject  TYPE DCH-FDD-Information        PRESENCE mandatory } |
    { ID id-DSCH-FDD-Information    CRITICALITY reject  TYPE DSCH-FDD-Information           PRESENCE optional   } |
    { ID id-RL-Information-RL-SetupRqstFDD      CRITICALITY notify  TYPE RL-InformationList-RL-SetupRqstFDD     PRESENCE mandatory   }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information       CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information   PRESENCE
    optional } |
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject  TYPE Active-Pattern-Sequence-Information  PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode               UL-ScramblingCode,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs                 MaxNrOfUL-DPCHs         OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
    ul-PunctureLimit                PunctureLimit,
    ul-TFCS                         TFCS,
    ul-DPCCH-SlotFormat             UL-DPCCH-SlotFormat,
    ul-SIRTarget                    UL-SIR          OPTIONAL,
    diversityMode                   DiversityMode,
    sSDT-CellIdLength               SSDT-CellID-Length      OPTIONAL,
    s-FieldLength                   S-FieldLength           OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                CRITICALITY reject      EXTENSION DPC-Mode              PRESENCE optional }|
    { ID id-UL-DPDCHIndicatorEDCH   CRITICALITY reject      EXTENSION UL-DPDCHIndicatorEDCH PRESENCE conditional },
    -- This IE shall be present if E-DPCH Information IE is present.
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                            TFCS,
    dl-DPCH-SlotFormat              DL-DPCH-SlotFormat,
    nrOfDLchannelisationcodes       NrOfDLchannelisationcodes,
    tFCI-SignallingMode             TFCI-SignallingMode,
    tFCI-Presence                   TFCI-Presence           OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition                MultiplexingPosition,
    powerOffsetInformation              PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize     FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease            LimitedPowerIncrease,
    innerLoopDLPCStatus             InnerLoopDLPCStatus,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-SplitType   CRITICALITY reject  EXTENSION   SplitType   PRESENCE optional   }|
    { ID id-LengthOfTFCI2   CRITICALITY reject  EXTENSION   LengthOfTFCI2   PRESENCE optional   },
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
        po1-ForTFCI-Bits                PowerOffset,
        po2-ForTPC-Bits                 PowerOffset,
        po3-ForPilotBits                PowerOffset,
        iE-Extensions                   ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
        ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD} }

RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-SetupRqstFDD  CRITICALITY notify  TYPE RL-InformationItem-RL-SetupRqstFDD     PRESENCE mandatory   }
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    firstRLS-indicator              FirstRLS-Indicator,
    frameOffset                     FrameOffset,
    chipOffset                      ChipOffset,
    propagationDelay                PropagationDelay        OPTIONAL,
    diversityControlField           DiversityControlField       OPTIONAL
    -- This IE shall be present if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
    dl-InitialTX-Power              DL-Power            OPTIONAL,
    primaryCPICH-EcNo               PrimaryCPICH-EcNo           OPTIONAL,
    sSDT-CellID                     SSDT-CellID         OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-SSDT-CellIDforEDSCHPC       CRITICALITY ignore  EXTENSION SSDT-CellID                PRESENCE conditional }|
    -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Information IE.
    { ID id-Enhanced-PrimaryCPICH-EcNo  CRITICALITY ignore  EXTENSION Enhanced-PrimaryCPICH-EcNo  PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore  EXTENSION RL-Specific-DCH-Info        PRESENCE optional }|
```

```
    { ID id-DelayedActivation          CRITICALITY reject  EXTENSION DelayedActivation          PRESENCE optional }|
    { ID id-Qth-Parameter              CRITICALITY ignore  EXTENSION Qth-Parameter              PRESENCE optional }|
    { ID id-CellPortionID              CRITICALITY ignore  EXTENSION CellPortionID              PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information           CRITICALITY reject      EXTENSION RL-Specific-EDCH-Information       PRESENCE optional }|
    { ID id-EDCH-RL-Indication                     CRITICALITY reject      EXTENSION EDCH-RL-Indication                 PRESENCE optional },
    ...
}

RadioLinkSetupRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity                  CRITICALITY ignore  EXTENSION Permanent-NAS-UE-Identity               PRESENCE optional }|
    { ID id-DL-PowerBalancing-Information              CRITICALITY ignore  EXTENSION DL-PowerBalancing-Information           PRESENCE optional}|
    { ID id-HSDSCH-FDD-Information                     CRITICALITY reject  EXTENSION HSDSCH-FDD-Information                 PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                              CRITICALITY reject  EXTENSION RL-ID                                  PRESENCE conditional }|
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation              CRITICALITY ignore   EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation                 PRESENCE optional }|
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH    CRITICALITY ignore   EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation-Of-HS-DSCH      PRESENCE optional }|
    { ID id-MBMS-Bearer-Service-List               CRITICALITY notify  EXTENSION MBMS-Bearer-Service-List               PRESENCE optional }|
    { ID id-EDPCH-Information                      CRITICALITY reject      EXTENSION EDPCH-Information-FDD              PRESENCE optional }|
    { ID id-EDCH-FDD-Information                   CRITICALITY reject      EXTENSION EDCH-FDD-Information               PRESENCE optional }|
    { ID id-Serving-EDCHRL-Id                      CRITICALITY reject      EXTENSION RL-ID                              PRESENCE conditional }|
    -- This IE is present if RL Specific E-DCHInformation IE is present.
    { ID id-F-DPCH-Information-RL-SetupRqstFDD     CRITICALITY reject  EXTENSION F-DPCH-Information-RL-SetupRqstFDD     PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed    CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed PRESENCE optional },
    ...
}


F-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    powerOffsetInformation          PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize     FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease            LimitedPowerIncrease,
    innerLoopDLPCStatus             InnerLoopDLPCStatus,
    iE-Extensions                   ProtocolExtensionContainer { { F-DPCH-Information-RL-SetupRqstFDD-ExtIEs} }               OPTIONAL,
    ...
}

F-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD ::= SEQUENCE {
    po2-ForTPC-Bits                 PowerOffset,
    iE-Extensions                   ProtocolExtensionContainer { { PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PowerOffsetInformation-F-DPCH-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
-- **************************************************************

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

RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SRNC-ID                                 CRITICALITY reject  TYPE RNC-ID                                     PRESENCE mandatory} |
    { ID id-S-RNTI                                  CRITICALITY reject  TYPE S-RNTI                                     PRESENCE mandatory} |
    { ID id-D-RNTI                                  CRITICALITY reject  TYPE D-RNTI                                     PRESENCE optional } |
    { ID id-UL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject  TYPE UL-Physical-Channel-Information-RL-SetupRqstTDD    PRESENCE
mandatory   } |
    { ID id-DL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject  TYPE DL-Physical-Channel-Information-RL-SetupRqstTDD    PRESENCE
mandatory   } |
    { ID id-AllowedQueuingTime                      CRITICALITY reject  TYPE AllowedQueuingTime                         PRESENCE optional } |
    { ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD  PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD  PRESENCE optional } |
    { ID id-DCH-TDD-Information         CRITICALITY reject  TYPE DCH-TDD-Information            PRESENCE optional  } |
    { ID id-DSCH-TDD-Information        CRITICALITY reject  TYPE DSCH-TDD-Information           PRESENCE optional  } |
    { ID id-USCH-Information        CRITICALITY reject  TYPE USCH-Information           PRESENCE optional } |
    { ID id-RL-Information-RL-SetupRqstTDD              CRITICALITY reject  TYPE RL-Information-RL-SetupRqstTDD             PRESENCE mandatory},
    ...
}

UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-UL               MaxNrTimeslots,
    minimumSpreadingFactor-UL       MinimumSpreadingFactor,
    maxNrULPhysicalchannels         MaxNrULPhysicalchannels,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-Support-8PSK        CRITICALITY ignore      EXTENSION Support-8PSK      PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

DL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-DL               MaxNrTimeslots,
    minimumSpreadingFactor-DL       MinimumSpreadingFactor,
    maxNrDLPhysicalchannels         MaxNrDLPhysicalchannels,
    iE-Extensions                   ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-maxNrDLPhysicalchannels     CRITICALITY ignore          EXTENSION MaxNrDLPhysicalchannelsTS     PRESENCE optional }|
    { ID id-TDD-Support-8PSK                CRITICALITY ignore          EXTENSION Support-8PSK                PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD           ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD  PRESENCE mandatory   }
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-TFCS                     TFCS,
    tFCI-Coding                 TFCI-Coding,
    ul-PunctureLimit                PunctureLimit,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD      CRITICALITY reject      EXTENSION   TDD-TPC-UplinkStepSize-LCR     PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD           ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD   CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD  PRESENCE mandatory    }
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-TFCS                     TFCS,
    tFCI-Coding                 TFCI-Coding,
    dl-PunctureLimit                PunctureLimit,
    tdd-TPC-DownlinkStepSize        TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList                  CCTrCH-TPCList-RL-SetupRqstTDD  OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD

CCTrCH-TPCItem-RL-SetupRqstTDD   ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    c-ID                        C-ID,
    frameOffset                 FrameOffset,
    specialBurstScheduling      SpecialBurstScheduling,
    primaryCCPCH-RSCP               PrimaryCCPCH-RSCP       OPTIONAL,
    dL-TimeSlot-ISCP                DL-TimeSlot-ISCP-Info   OPTIONAL,
    --for 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD    CRITICALITY reject      EXTENSION    DL-TimeSlot-ISCP-LCR-Information PRESENCE optional
    }|
    { ID id-TSTD-Support-Indicator-RL-SetupRqstTDD              CRITICALITY ignore      EXTENSION    TSTD-Support-Indicator           PRESENCE optional
    }|
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info    CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info    PRESENCE   optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR           CRITICALITY reject      EXTENSION   UL-Synchronisation-Parameters-LCR     PRESENCE    optional
    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta     CRITICALITY ignore      EXTENSION   PrimaryCCPCH-RSCP-Delta     PRESENCE    optional },
    ...
}

RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity               CRITICALITY ignore          EXTENSION Permanent-NAS-UE-Identity   PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information                  CRITICALITY reject          EXTENSION HSDSCH-TDD-Information   PRESENCE optional }|
    { ID id-HSPDSCH-RL-ID                           CRITICALITY reject          EXTENSION RL-ID                       PRESENCE conditional }|
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-PDSCH-RL-ID             CRITICALITY ignore          EXTENSION RL-ID     PRESENCE optional }|
    { ID id-MBMS-Bearer-Service-List        CRITICALITY notify  EXTENSION MBMS-Bearer-Service-List        PRESENCE optional},  ...
}

-- **************************************************************
--
```

```
-- RADIO LINK SETUP RESPONSE FDD
--
-- **************************************************************

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

RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                          CRITICALITY ignore  TYPE D-RNTI                     PRESENCE optional  } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier      PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier      PRESENCE optional } |
    { ID id-RL-InformationResponseList-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-SetupRspFDD  PRESENCE mandatory   } |
    { ID id-UL-SIRTarget                    CRITICALITY ignore  TYPE UL-SIR                 PRESENCE optional } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponseItemIEs-RL-
SetupRspFDD} }

RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD   CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-SetupRspFDD  PRESENCE mandatory   }
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    rL-Set-ID                       RL-Set-ID,
    uRA-Information                 URA-Information     OPTIONAL,
    sAI                             SAI,
    gA-Cell                         GA-Cell     OPTIONAL,
    gA-AccessPointPosition          GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power  Received-total-wide-band-power,
    secondary-CCPCH-Info            Secondary-CCPCH-Info        OPTIONAL,
    dl-CodeInformation              FDD-DL-CodeInformation,
    diversityIndication             DiversityIndication-RL-SetupRspFDD,

    sSDT-SupportIndicator           SSDT-SupportIndicator,
    maxUL-SIR                       UL-SIR,
    minUL-SIR                       UL-SIR,
    closedlooptimingadjustmentmode  Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    maximumDLTxPower                DL-Power,
    minimumDLTxPower                DL-Power,
    primaryScramblingCode           PrimaryScramblingCode   OPTIONAL,
    uL-UARFCN                       UARFCN                  OPTIONAL,
    dL-UARFCN                       UARFCN                  OPTIONAL,
    primaryCPICH-Power              PrimaryCPICH-Power,
    dSCHInformationResponse         DSCH-InformationResponse-RL-SetupRspFDD OPTIONAL,
```

```
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble                     PC-Preamble,
    sRB-Delay                       SRB-Delay,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                     CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                     PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional }|
    { ID id-TFCI-PC-SupportIndicator                    CRITICALITY ignore  EXTENSION TFCI-PC-SupportIndicator                    PRESENCE optional }|
    { ID id-HCS-Prio                                    CRITICALITY ignore  EXTENSION HCS-Prio                                    PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE optional }|
    { ID id-Secondary-CPICH-Information                 CRITICALITY ignore  EXTENSION Secondary-CPICH-Information                 PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL               CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL           PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                               CRITICALITY ignore  EXTENSION RL-Set-ID                                   PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation       CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation       PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                    PRESENCE optional },
    ...
}

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining                       Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL           NonCombiningOrFirstRL-RL-SetupRspFDD
}

Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse       PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions               ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-EDCH-FDD-InformationResponse     CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE mandatory},
    ...
}
```

```
DSCH-InformationResponse-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseIE-RL-SetupRspFDD }}

DSCH-InformationResponseIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-FDD-InformationResponse   CRITICALITY ignore   TYPE    DSCH-FDD-InformationResponse PRESENCE mandatory }
}

RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-RNTI                          CRITICALITY ignore      EXTENSION DSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-RNTI                        CRITICALITY ignore      EXTENSION HSDSCH-RNTI                        PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response    CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- **************************************************************

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

RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                 CRITICALITY ignore  TYPE D-RNTI                    PRESENCE optional  } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier      PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier      PRESENCE optional } |
    { ID id-RL-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  TYPE RL-InformationResponse-RL-SetupRspTDD  PRESENCE optional } |
    --Mandatory for 3.84Mcps TDD only
    { ID id-UL-SIRTarget               CRITICALITY ignore  TYPE UL-SIR                 PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information     OPTIONAL,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info       UL-TimeSlot-ISCP-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    uARFCNforNt                 UARFCN              OPTIONAL,
    cellParameterID             CellParameterID     OPTIONAL,
    syncCase                    SyncCase            OPTIONAL,
```

```
    sCH-TimeSlot                SCH-TimeSlot        OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
    sCTD-Indicator              SCTD-Indicator  OPTIONAL,
    pCCPCH-Power                PCCPCH-Power,
    timingAdvanceApplied        TimingAdvanceApplied,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD            Secondary-CCPCH-Info-TDD    OPTIONAL,
    ul-CCTrCHInformation                UL-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dl-CCTrCHInformation                DL-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dCH-InformationResponse             DCH-InformationResponseList-RL-SetupRspTDD  OPTIONAL,
    dsch-InformationResponse            DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse            USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    neighbouring-UMTS-CellInformation           Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation            Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes         CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes    PRESENCE optional }|
    { ID id-HCS-Prio            CRITICALITY ignore  EXTENSION   HCS-Prio        PRESENCE optional }|
    { ID id-TimeSlot-RL-SetupRspTDD     CRITICALITY ignore  EXTENSION   TimeSlot    PRESENCE conditional  },
    -- This IE shall be present if Sync Case IE is Case1. --
    ...
}

UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}

UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD     PRESENCE mandatory }
}

UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD

UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore      EXTENSION UL-SIR    PRESENCE optional},
    ...
}

UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory}
}


UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-Timeslot-Information         UL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}

DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD  PRESENCE mandatory }
}

DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD

DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-Information              DL-DPCH-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD      CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional }| -- this is a DCH type
CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD      CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional }, -- this is a DCH type
CCTrCH power
    ...
}

DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-SetupRspTDD  PRESENCE mandatory}
}

DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information         DL-Timeslot-Information,
```

```
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}

DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse  PRESENCE mandatory }
}

DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}

DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD

DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}

USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD

USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID                     USCH-ID,
    bindingID                   BindingID   OPTIONAL,
    transportLayerAddress       TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions               ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD   CRITICALITY ignore  EXTENSION   RL-LCR-InformationResponse-RL-SetupRspTDD    PRESENCE
optional}|
    --Mandatory for 1.28Mcps TDD only
    { ID id-HSDSCH-RNTI                         CRITICALITY ignore      EXTENSION HSDSCH-RNTI                          PRESENCE optional }|
    { ID id-HSDSCH-TDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-TDD-Information-Response      PRESENCE optional }|
    { ID id-DSCH-RNTI                           CRITICALITY ignore      EXTENSION DSCH-RNTI                            PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceTDD-PFL       CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListTDD-PFL   PRESENCE optional},
    ...
}

RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info   UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    uARFCNforNt                 UARFCN                  OPTIONAL,
    cellParameterID             CellParameterID         OPTIONAL,
    sCTD-Indicator      SCTD-Indicator  OPTIONAL,
    pCCPCH-Power                PCCPCH-Power,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration            SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD            Secondary-LCR-CCPCH-Info-TDD                    OPTIONAL,
    ul-LCR-CCTrCHInformation                UL-LCR-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dl-LCR-CCTrCHInformation                DL-LCR-CCTrCHInformationList-RL-SetupRspTDD     OPTIONAL,
    dCH-InformationResponse                 DCH-InformationResponseList-RL-SetupRspTDD      OPTIONAL,
    dsch-LCR-InformationResponse            DSCH-LCR-InformationResponse-RL-SetupRspTDD     OPTIONAL,
    usch-LCR-InformationResponse            USCH-LCR-InformationResponse-RL-SetupRspTDD     OPTIONAL,
    neighbouring-UMTS-CellInformation       Neighbouring-UMTS-CellInformation               OPTIONAL,
    neighbouring-GSM-CellInformation        Neighbouring-GSM-CellInformation                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }   OPTIONAL,
    ...
}

RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes      PRESENCE optional }|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION   HCS-Prio                    PRESENCE optional }|
```

```
    { ID id-UL-TimingAdvanceCtrl-LCR              CRITICALITY ignore  EXTENSION   UL-TimingAdvanceCtrl-LCR     PRESENCE optional },
    --Mandatory for 1.28Mcps TDD only
    ...
}

UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}

UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD   PRESENCE mandatory
}
}

UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD

UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-LCR-Information     UL-DPCH-LCR-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD      CRITICALITY ignore      EXTENSION UL-SIR    PRESENCE optional},
    ...
}

UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }

UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD  PRESENCE mandatory }
}

UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-TimeslotLCR-Information      UL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}

DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD   CRITICALITY ignore TYPE DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD  PRESENCE mandatory
}
}
```

```
DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD

DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-LCR-Information     DL-DPCH-LCR-InformationList-RL-SetupRspTDD      OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }

DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD      CRITICALITY ignore  TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD  PRESENCE mandatory }
}

DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-LCR-Information     DL-TimeslotLCR-Information,
    tSTD-Indicator                  TSTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}

DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD

DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}

USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD      CRITICALITY ignore  TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
}

USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD

USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID                     USCH-ID,
    bindingID                   BindingID   OPTIONAL,
    transportLayerAddress       TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions               ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE FDD
--
-- **************************************************************

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

RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                  CRITICALITY ignore  TYPE D-RNTI                 PRESENCE optional   } |
    { ID id-CN-PS-DomainIdentifier          CRITICALITY ignore  TYPE CN-PS-DomainIdentifier       PRESENCE optional } |
    { ID id-CN-CS-DomainIdentifier          CRITICALITY ignore  TYPE CN-CS-DomainIdentifier       PRESENCE optional } |
    { ID id-CauseLevel-RL-SetupFailureFDD               CRITICALITY ignore     TYPE CauseLevel-RL-SetupFailureFDD     PRESENCE mandatory }|
    { ID id-UL-SIRTarget                CRITICALITY ignore  TYPE UL-SIR                 PRESENCE optional  } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureFDD,
    ...
```

```
}

GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD        SuccessfulRL-InformationResponseList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-RNTI                       CRITICALITY ignore      EXTENSION DSCH-RNTI                         PRESENCE optional }|
    { ID id-HSDSCH-RNTI                     CRITICALITY ignore      EXTENSION HSDSCH-RNTI                       PRESENCE optional }|
    { ID id-HSDSCH-FDD-Information-Response     CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response     PRESENCE optional },
    ...
}

UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD       CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory  }
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Active-MBMS-Bearer-ServiceFDD       CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListFDD      PRESENCE optional},
    ...
}

SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD     CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory  }
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    rL-Set-ID                               RL-Set-ID,
    uRA-Information                         URA-Information     OPTIONAL,
    sAI                                     SAI,
    gA-Cell                                 GA-Cell     OPTIONAL,
    gA-AccessPointPosition                  GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power                                  Received-total-wide-band-power,
    secondary-CCPCH-Info                    Secondary-CCPCH-Info        OPTIONAL,
    dl-CodeInformation                      FDD-DL-CodeInformation,
    diversityIndication                     DiversityIndication-RL-SetupFailureFDD,

    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    maxUL-SIR                               UL-SIR,
    minUL-SIR                               UL-SIR,
    closedlooptimingadjustmentmode          Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower                 MaximumAllowedULTxPower,
    maximumDLTxPower                        DL-Power,
    minimumDLTxPower                        DL-Power,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    primaryScramblingCode                   PrimaryScramblingCode   OPTIONAL,
    uL-UARFCN                                       UARFCN      OPTIONAL,
    dL-UARFCN                                       UARFCN      OPTIONAL,
    dSCH-InformationResponse-RL-SetupFailureFDD     DSCH-InformationResponseList-RL-SetupFailureFDD     OPTIONAL,
    neighbouring-UMTS-CellInformation       Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation        Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble                             PC-Preamble,
    sRB-Delay                               SRB-Delay,
    iE-Extensions                           ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                     CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                     PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator       CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator       PRESENCE optional }|
    { ID id-TFCI-PC-SupportIndicator                    CRITICALITY ignore  EXTENSION TFCI-PC-SupportIndicator                    PRESENCE optional }|
    { ID id-HCS-Prio                                    CRITICALITY ignore  EXTENSION HCS-Prio                                    PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation  CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation  PRESENCE optional }|
    { ID id-Secondary-CPICH-Information                 CRITICALITY ignore  EXTENSION Secondary-CPICH-Information                 PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL               CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL           PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                               CRITICALITY ignore  EXTENSION RL-Set-ID                                   PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation       CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation       PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment            CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                    PRESENCE optional },
    ...
}
```

```
DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                       Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL       NonCombiningOrFirstRL-RL-SetupFailureFDD
}

Combining-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                           ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

DSCH-InformationResponseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupFailureFDD }}

DSCH-InformationResponseListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-FDD-InformationResponse   CRITICALITY ignore   TYPE DSCH-FDD-InformationResponse    PRESENCE mandatory }
}

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

-- **************************************************************
--
-- RADIO LINK SETUP FAILURE TDD
--
-- **************************************************************

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

RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
    { ID id-CauseLevel-RL-SetupFailureTDD   CRITICALITY ignore  TYPE CauseLevel-RL-SetupFailureTDD     PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}

GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD  Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions                                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }   OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD        CRITICALITY ignore    TYPE  UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD     PRESENCE    mandatory   }
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST FDD
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-- **************************************************************

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

RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-SIRTarget               CRITICALITY reject  TYPE UL-SIR                PRESENCE mandatory } |
    { ID id-RL-InformationList-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-InformationList-RL-AdditionRqstFDD  PRESENCE mandatory   }|
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject  TYPE Active-Pattern-Sequence-Information   PRESENCE optional },
    ...
}

RL-InformationList-RL-AdditionRqstFDD           ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRqstFDD-IEs} }

RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstFDD   CRITICALITY notify  TYPE RL-Information-RL-AdditionRqstFDD    PRESENCE mandatory   }
}

RL-Information-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
    chipOffset                      ChipOffset,
    diversityControlField           DiversityControlField,
    primaryCPICH-EcNo               PrimaryCPICH-EcNo       OPTIONAL,
    sSDT-CellID                     SSDT-CellID         OPTIONAL,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower    CRITICALITY ignore      EXTENSION   DL-Power        PRESENCE optional}|
    { ID id-Enhanced-PrimaryCPICH-EcNo              CRITICALITY ignore          EXTENSION Enhanced-PrimaryCPICH-EcNo     PRESENCE optional }|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info  PRESENCE    optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-Qth-Parameter   CRITICALITY ignore      EXTENSION   Qth-Parameter       PRESENCE optional }|
    { ID id-RL-Specific-EDCH-Information            CRITICALITY reject      EXTENSION RL-Specific-EDCH-Information       PRESENCE optional }|
    { ID id-EDCH-RL-Indication                      CRITICALITY reject      EXTENSION EDCH-RL-Indication                 PRESENCE optional },
    ...
}
```

```
RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode                                CRITICALITY reject  EXTENSION DPC-Mode                                PRESENCE optional }|
    { ID id-Permanent-NAS-UE-Identity               CRITICALITY ignore  EXTENSION Permanent-NAS-UE-Identity               PRESENCE optional }|
        { ID id-Serving-EDCHRL-Id                   CRITICALITY reject  EXTENSION RL-ID                                   PRESENCE
conditional }|
    -- This IE is present if RL Specific E-DCHInformation IE is present.
    { ID id-Initial-DL-DPCH-TimingAdjustment-Allowed    CRITICALITY ignore  EXTENSION Initial-DL-DPCH-TimingAdjustment-Allowed    PRESENCE optional },
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION REQUEST TDD
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-- **************************************************************

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

RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-AdditionRqstTDD   CRITICALITY reject  TYPE RL-Information-RL-AdditionRqstTDD   PRESENCE mandatory   },
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    c-ID                            C-ID,
    frameOffset                     FrameOffset,
    diversityControlField           DiversityControlField,
    primaryCCPCH-RSCP               PrimaryCCPCH-RSCP       OPTIONAL,
    dL-TimeSlot-ISCP-Info           DL-TimeSlot-ISCP-Info   OPTIONAL,
    --for 3.84Mcps TDD only
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD CRITICALITY reject      EXTENSION    DL-TimeSlot-ISCP-LCR-Information    PRESENCE
optional    }|
    --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info  PRESENCE    optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-UL-Synchronisation-Parameters-LCR           CRITICALITY reject      EXTENSION   UL-Synchronisation-Parameters-LCR     PRESENCE    optional
    }|  -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta     CRITICALITY ignore      EXTENSION   PrimaryCCPCH-RSCP-Delta     PRESENCE    optional },
    ...
}
```

```
RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Permanent-NAS-UE-Identity              CRITICALITY ignore          EXTENSION Permanent-NAS-UE-Identity   PRESENCE optional }|
    { ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY notify  EXTENSION UL-CCTrCH-InformationList-RL-AdditionRqstTDD  PRESENCE
optional    } |
    { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD    CRITICALITY notify  EXTENSION DL-CCTrCH-InformationList-RL-AdditionRqstTDD  PRESENCE
optional    },
    ...
}

UL-CCTrCH-InformationList-RL-AdditionRqstTDD    ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-InformationItemIEs-
RL-AdditionRqstTDD} }

UL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD    CRITICALITY notify  TYPE UL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE optional},
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    uplinkStepSizeLCR           TDD-TPC-UplinkStepSize-LCR    OPTIONAL,
    -- Applicable to 1.28Mcps TDD only
    iE-Extensions               ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD    ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-InformationItemIEs-
RL-AdditionRqstTDD} }

DL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD    CRITICALITY notify  TYPE DL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE optional},
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    downlinkStepSize            TDD-TPC-DownlinkStepSize   OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

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

RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-AdditionRspFDD    PRESENCE mandatory
    } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-AdditionRspFDD        ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }

RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD        CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-AdditionRspFDD   PRESENCE
mandatory   }
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    rL-Set-ID                       RL-Set-ID,
    uRA-Information                 URA-Information     OPTIONAL,
    sAI                             SAI,
    gA-Cell                         GA-Cell     OPTIONAL,
    gA-AccessPointPosition          GA-AccessPointPosition  OPTIONAL,
    received-total-wide-band-power  Received-total-wide-band-power,
    secondary-CCPCH-Info            Secondary-CCPCH-Info        OPTIONAL,
    dl-CodeInformation              DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication             DiversityIndication-RL-AdditionRspFDD,

    sSDT-SupportIndicator               SSDT-SupportIndicator,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    closedlooptimingadjustmentmode      Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble                         PC-Preamble,
    sRB-Delay                           SRB-Delay,
    primaryCPICH-Power                  PrimaryCPICH-Power,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
```

```
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes                 CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                   PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator   CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator     PRESENCE optional}|
    { ID id-TFCI-PC-SupportIndicator                CRITICALITY ignore EXTENSION    TFCI-PC-SupportIndicator                PRESENCE optional }|
    { ID id-HCS-Prio                                CRITICALITY ignore  EXTENSION HCS-Prio                                PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation      CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation          PRESENCE
optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL           CRITICALITY ignore EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL          PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                           CRITICALITY ignore EXTENSION RL-Set-ID                                PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation   CRITICALITY ignore EXTENSION EDCH-FDD-DL-ControlChannelInformation      PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment        CRITICALITY ignore EXTENSION DL-DPCH-TimingAdjustment                 PRESENCE optional },
    ...
}

DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}

DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                       Combining-RL-AdditionRspFDD,
    nonCombining                    NonCombining-RL-AdditionRspFDD
}

Combining-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse       PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse        PRESENCE optional },
    ...
}

NonCombining-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponse                 DCH-InformationResponse,
    iE-Extensions                               ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse        PRESENCE optional },
    ...
}
```

```
RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

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

RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD        CRITICALITY ignore  TYPE RL-InformationResponse-RL-AdditionRspTDD  PRESENCE optional } |
    --Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    uRA-Information                     URA-Information     OPTIONAL,
    sAI                                 SAI,
    gA-Cell                             GA-Cell     OPTIONAL,
    gA-AccessPointPosition              GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-Info               UL-TimeSlot-ISCP-Info,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    pCCPCH-Power                        PCCPCH-Power,
    timingAdvanceApplied                TimingAdvanceApplied,
    alphaValue                          AlphaValue,
    ul-PhysCH-SF-Variation              UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD            Secondary-CCPCH-Info-TDD                        OPTIONAL,
    ul-CCTrCHInformation                UL-CCTrCHInformationList-RL-AdditionRspTDD      OPTIONAL,
    dl-CCTrCHInformation                DL-CCTrCHInformationList-RL-AdditionRspTDD      OPTIONAL,
    dCH-Information                     DCH-Information-RL-AdditionRspTDD               OPTIONAL,
    dSCH-InformationResponse            DSCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    uSCH-InformationResponse            USCH-InformationResponse-RL-AdditionRspTDD      OPTIONAL,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation   OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes         CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-HCS-Prio            CRITICALITY ignore  EXTENSION   HCS-Prio        PRESENCE optional },
    ...
}

UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}

UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE mandatory
}
}

UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD

UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-Information             UL-DPCH-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory  }
}

UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    uL-Timeslot-Information         UL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}

DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD    PRESENCE mandatory
}
```

```
}

DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD

DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-Information              DL-DPCH-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD       CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional}| -- this is a DCH type
CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD       CRITICALITY ignore      EXTENSION  DL-Power    PRESENCE optional}, -- this is a DCH type
CCTrCH power
    ...
}

DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD  PRESENCE mandatory  }
}

DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-Timeslot-Information         DL-Timeslot-Information,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication                 DiversityIndication-RL-AdditionRspTDD,

    iE-Extensions                   ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining       Combining-RL-AdditionRspTDD,
```

```
    nonCombining    NonCombining-RL-AdditionRspTDD
}

Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional },
    ...
}

NonCombining-RL-AdditionRspTDD  ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions                   ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}

DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD    CRITICALITY ignore  TYPE DSCH-InformationListIE-RL-AdditionRspTDD   PRESENCE mandatory }
}

DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD

DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    transportFormatManagement   TransportFormatManagement,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    diversityIndication     DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions           ProtocolExtensionContainer { {DSCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
    ...
```

```
}
DiversityIndication-RL-AdditionRspTDD2-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}

USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD    CRITICALITY ignore  TYPE USCH-InformationListIE-RL-AdditionRspTDD   PRESENCE mandatory }
}

USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD

USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID                 USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    diversityIndication     DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions           ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD    CRITICALITY ignore      EXTENSION   RL-LCR-InformationResponse-RL-AdditionRspTDD
    PRESENCE optional   }|
    --Mandatory for 1.28Mcps TDD only
    { ID id-Active-MBMS-Bearer-ServiceTDD-PFL                   CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListTDD-PFL
    PRESENCE optional},
    ...
}

RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    uRA-Information             URA-Information,
    sAI                         SAI,
    gA-Cell                     GA-Cell     OPTIONAL,
    gA-AccessPointPosition      GA-AccessPointPosition  OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info   UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR                   UL-SIR,
    minUL-SIR                   UL-SIR,
    pCCPCH-Power                PCCPCH-Power,
    maximumAllowedULTxPower     MaximumAllowedULTxPower,
    maximumDLTxPower            DL-Power,
    minimumDLTxPower            DL-Power,
    alphaValue                  AlphaValue,
    ul-PhysCH-SF-Variation      UL-PhysCH-SF-Variation,
    synchronisationConfiguration        SynchronisationConfiguration,
```

```
    secondary-LCR-CCPCH-Info-TDD        Secondary-LCR-CCPCH-Info-TDD                        OPTIONAL,
    ul-CCTrCH-LCR-Information           UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD     OPTIONAL,
    dl-CCTrCH-LCR-Information           DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD     OPTIONAL,
    dCH-InformationResponse             DCH-InformationResponseList-RL-AdditionRspTDD       OPTIONAL,
    dsch-LCR-InformationResponse        DSCH-LCR-InformationResponse-RL-AdditionRspTDD     OPTIONAL,
    usch-LCR-InformationResponse            USCH-LCR-InformationResponse-RL-AdditionRspTDD     OPTIONAL,
    neighbouring-UMTS-CellInformation           Neighbouring-UMTS-CellInformation               OPTIONAL,
    neighbouring-GSM-CellInformation            Neighbouring-GSM-CellInformation             OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs} }     OPTIONAL,
    ...
}

RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes     CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-HCS-Prio                    CRITICALITY ignore  EXTENSION   HCS-Prio                    PRESENCE optional }|
    { ID id-UL-TimingAdvanceCtrl-LCR    CRITICALITY ignore  EXTENSION   UL-TimingAdvanceCtrl-LCR    PRESENCE optional },
    --Mandatory for 1.28Mcps TDD only
    ...
}

UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}

UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD    PRESENCE
mandatory }
}

UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD

UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    ul-DPCH-LCR-Information             UL-DPCH-LCR-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }

UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD  PRESENCE
mandatory   }
}

UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
```

```
    uL-TimeslotLCR-Information      UL-TimeslotLCR-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}

DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD   CRITICALITY ignore  TYPE DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD  PRESENCE
mandatory }
}

DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD

DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID                   CCTrCH-ID,
    dl-DPCH-LCR-Information     DL-DPCH-LCR-InformationList-RL-AdditionRspTDD       OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }

DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD  PRESENCE
mandatory   }
}

DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod                RepetitionPeriod,
    repetitionLength                RepetitionLength,
    tDD-DPCHOffset                  TDD-DPCHOffset,
    dL-TimeslotLCR-Information      DL-TimeslotLCR-Information,
    tSTD-Indicator                  TSTD-Indicator,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}
```

```
DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse   CRITICALITY ignore    TYPE DCH-InformationResponse  PRESENCE mandatory }
}

DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}

DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD       CRITICALITY ignore  TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
}

DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD

DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID                 DSCH-ID,
    dSCH-FlowControlInformation     DSCH-FlowControlInformation,
    bindingID               BindingID   OPTIONAL,
    transportLayerAddress   TransportLayerAddress   OPTIONAL,
    transportFormatManagement   TransportFormatManagement,
    iE-Extensions           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}

USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD       CRITICALITY ignore  TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
}

USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD

USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    usch-ID                     USCH-ID,
    transportFormatManagement   TransportFormatManagement,
    diversityIndication         DiversityIndication-RL-AdditionRspTDD2      OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
```

```
-- RADIO LINK ADDITION FAILURE FDD
--
-- **************************************************************

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

RadioLinkAdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD                    CRITICALITY     ignore           TYPE CauseLevel-RL-AdditionFailureFDD
    PRESENCE    mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureFDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureFDD,
    ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD       UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD         SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD    CRITICALITY ignore  TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD      PRESENCE mandatory  }
}
```

```
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Active-MBMS-Bearer-ServiceFDD       CRITICALITY ignore      EXTENSION Active-MBMS-Bearer-Service-ListFDD      PRESENCE optional},
    ...
}

SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-2)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD      CRITICALITY ignore  TYPE SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
        PRESENCE mandatory  }
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    rL-Set-ID                           RL-Set-ID,
    uRA-Information                     URA-Information     OPTIONAL,
    sAI                                 SAI,
    gA-Cell                             GA-Cell     OPTIONAL,
    gA-AccessPointPosition              GA-AccessPointPosition      OPTIONAL,
    received-total-wide-band-power      Received-total-wide-band-power,
    secondary-CCPCH-Info                Secondary-CCPCH-Info        OPTIONAL,
    dl-CodeInformation                  DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication                 DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator               SSDT-SupportIndicator,
    minUL-SIR                           UL-SIR,
    maxUL-SIR                           UL-SIR,
    closedlooptimingadjustmentmode      Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower             MaximumAllowedULTxPower,
    maximumDLTxPower                    DL-Power,
    minimumDLTxPower                    DL-Power,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    primaryCPICH-Power                  PrimaryCPICH-Power,
    pC-Preamble                         PC-Preamble,
    sRB-Delay                           SRB-Delay,
    iE-Extensions                       ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-GA-CellAdditionalShapes                    CRITICALITY ignore  EXTENSION GA-CellAdditionalShapes                    PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator      CRITICALITY ignore  EXTENSION DL-PowerBalancing-ActivationIndicator      PRESENCE optional }|
    { ID id-TFCI-PC-SupportIndicator                   CRITICALITY ignore  EXTENSION TFCI-PC-SupportIndicator                   PRESENCE optional }|
    { ID id-HCS-Prio                                   CRITICALITY ignore  EXTENSION HCS-Prio                                PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore  EXTENSION Primary-CPICH-Usage-For-Channel-Estimation PRESENCE optional }|
    { ID id-Active-MBMS-Bearer-ServiceFDD-PFL              CRITICALITY ignore  EXTENSION Active-MBMS-Bearer-Service-ListFDD-PFL       PRESENCE
optional }|
    { ID id-EDCH-RLSet-Id                              CRITICALITY ignore  EXTENSION RL-Set-ID                               PRESENCE optional }|
    { ID id-EDCH-FDD-DL-ControlChannelInformation      CRITICALITY ignore  EXTENSION EDCH-FDD-DL-ControlChannelInformation   PRESENCE optional }|
    { ID id-Initial-DL-DPCH-TimingAdjustment           CRITICALITY ignore  EXTENSION DL-DPCH-TimingAdjustment                PRESENCE optional },
    ...
}

DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}

DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation   CRITICALITY ignore TYPE FDD-DL-CodeInformation     PRESENCE mandatory }
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                       Combining-RL-AdditionFailureFDD,
    nonCombining                    NonCombining-RL-AdditionFailureFDD
}

Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    iE-Extensions               ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse         CRITICALITY ignore  EXTENSION DCH-InformationResponse      PRESENCE optional }|
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse     DCH-InformationResponse,
    iE-Extensions                               ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EDCH-FDD-InformationResponse    CRITICALITY ignore  EXTENSION EDCH-FDD-InformationResponse       PRESENCE optional },
    ...
}

RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- **************************************************************
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- **************************************************************

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

RadioLinkAdditionFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureTDD    CRITICALITY ignore  TYPE CauseLevel-RL-AdditionFailureTDD  PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics       PRESENCE optional },
    ...
}

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause        GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause     RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }     OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD   Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
    iE-Extensions                                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD     CRITICALITY ignore    TYPE  UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD  PRESENCE mandatory}
```

```
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    cause                       Cause,
    iE-Extensions               ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

********** next change **********

```
-- **************************************************************
--
-- MBMS CHANNEL TYPE RECONFIGURATION INDICATION
--
-- **************************************************************

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

MBMSChannelTypeReconfigurationIndication-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DRNC-ID                         CRITICALITY ignore  TYPE RNC-ID                         PRESENCE mandatory} |
    { ID id-C-ID                            CRITICALITY ignore  TYPE C-ID                           PRESENCE mandatory} |
    { ID id-TMGI                            CRITICALITY ignore  TYPE    TMGI                        PRESENCE mandatory}|
    { ID id-TransmissionMode                CRITICALITY ignore  TYPE    TransmissionMode            PRESENCE mandatory}|
    { ID id-AffectedUEInformationForMBMS    CRITICALITY ignore  TYPE AffectedUEInformationForMBMS   PRESENCE optional } ,
    ...
}

AffectedUEInformationForMBMS    ::= SEQUENCE (SIZE (1..maxNrOfUEs)) OF S-RNTI


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

-- **************************************************************
```

```
--
-- DIRECT INFORMATION TRANSFER
--
-- **************************************************************

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

DirectInformationTransfer-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RNC-ID                          CRITICALITY ignore  TYPE RNC-ID                         PRESENCE mandatory} |
    { ID id-ProvidedInformation             CRITICALITY ignore  TYPE ProvidedInformation            PRESENCE mandatory} ,
    ...
}

DirectInformationTransfer-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,
    maxNrOfActiveMBMSServices,
    maxNrOfCells,
```

```
    maxNrOfSNAs,
    maxNrOfHARQProc,
    maxNrOfHSSCCHCodes,
    maxNrOfMACdFlows,
    maxNrOfMACdFlows-1,
    maxNrOfMBMSServices,    maxNrOfPDUIndexes,
    maxNrOfPDUIndexes-1,
    maxNrOfPrioQueues,
    maxNrOfPrioQueues-1,
    maxNrOfSatAlmanac-maxNoSat,
    maxNrOfGERANSI,
    maxNrofDDIs,
    maxNrofSigSeqERGHICH-1,
    maxNrOfUEs,
    maxNrOfAddFreq,
    maxNrOfCellsPerFreq,


    id-Allowed-Rate-Information,
    id-AntennaColocationIndicator,
    id-BindingID,
    id-Cell-Capacity-Class-Value,
    id-CellCapabilityContainer-FDD,
    id-CellCapabilityContainer-TDD,
    id-CellCapabilityContainer-TDD-LCR,
    id-CoverageIndicator,
    id-DPC-Mode-Change-SupportIndicator,
    id-DSCH-Specific-FDD-Additional-List,
    id-GERAN-Cell-Capability,
    id-GERAN-Classmark,
    id-Guaranteed-Rate-Information,
    id-HCS-Prio,
    id-Load-Value,
    id-Load-Value-IncrDecrThres,
    id-Neighbouring-GSM-CellInformation,
    id-Neighbouring-UMTS-CellInformationItem,
    id-neighbouring-LCR-TDD-CellInformation,
    id-NRT-Load-Information-Value,
    id-NRT-Load-Information-Value-IncrDecrThres,
    id-OnModification,
    id-Received-Total-Wideband-Power-Value,
    id-Received-Total-Wideband-Power-Value-IncrDecrThres,
    id-RT-Load-Value,
    id-RT-Load-Value-IncrDecrThres,
    id-SFNSFNMeasurementThresholdInformation,
    id-SNA-Information,
    id-TrafficClass,
    id-Transmitted-Carrier-Power-Value,
    id-Transmitted-Carrier-Power-Value-IncrDecrThres,
    id-TUTRANGPSMeasurementThresholdInformation,
    id-UL-Timeslot-ISCP-Value,
```

```
    id-UL-Timeslot-ISCP-Value-IncrDecrThres,
    maxNrOfLevels,
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    id-MessageStructure,
    id-EnhancedDSCHPC,
    id-RestrictionStateIndicator,
    id-Rx-Timing-Deviation-Value-LCR,
    id-TransportLayerAddress,
    id-TypeOfError,
    id-Angle-Of-Arrival-Value-LCR,
    id-IPDL-TDD-ParametersLCR,
    id-DSCH-InitialWindowSize,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-MBMS-Bearer-Service-Full-Address,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-ExtendedGSMCellIndividualOffset,
    id-Unidirectional-DCH-Indicator,
    id-RTLoadValue,
    id-NRTLoadInformationValue,
    id-Satellite-Almanac-Information-ExtItem,
    id-TnlQos,
    id-UpPTSInterferenceValue,
    id-NACC-Related-Data,
    id-HARQ-Preamble-Mode

FROM RNSAP-Constants

    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes

    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;
-- A

AccessPointName     ::= OCTET STRING (SIZE (1..255))

AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1

Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
```

```
Active-MBMS-Bearer-Service-ListFDD  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemFDD

Active-MBMS-Bearer-Service-ListFDD-PFL  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemFDD-PFL

Active-MBMS-Bearer-Service-ListTDD  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemTDD

Active-MBMS-Bearer-Service-ListTDD-PFL  ::= SEQUENCE (SIZE (1..maxNrOfActiveMBMSServices)) OF MBMS-Bearer-ServiceItemTDD-PFL

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN        CFN,
    transmission-Gap-Pattern-Sequence-Status    Transmission-Gap-Pattern-Sequence-Status-List    OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

AdditionalPreferredFrequency    ::= SEQUENCE (SIZE (1..maxNrOfAddFreq)) OF AdditionalPreferredFrequencyItem

AdditionalPreferredFrequencyItem ::= SEQUENCE {
    dL-UARFCN                       UARFCN,
    correspondingCells              CorrespondingCells,
    iE-Extensions                   ProtocolExtensionContainer { { AdditionalPreferredFrequencyItem-ExtIEs} } OPTIONAL,
    ...
}


AdditionalPreferredFrequencyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
AdjustmentPeriod            ::= INTEGER(1..256)
-- Unit Frame

AffectedUEInformationForMBMS    ::= SEQUENCE (SIZE (1..maxNrOfUEs)) OF S-RNTI

********** next change **********


CorrespondingCells  ::= SEQUENCE (SIZE (1..maxNrOfCellsPerFreq)) OF C-ID


********** next change **********

MBMS-Bearer-Service-Full-Address ::= SEQUENCE {
    accessPointName                         AccessPointName,
    iPMulticastAddress                      IPMulticastAddress,
    iE-Extensions                       ProtocolExtensionContainer { { MBMS-Bearer-Service-Full-Address-ExtIEs } }       OPTIONAL,
    ...
```

```
}

MBMS-Bearer-Service-Full-Address-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-Service-List    ::= SEQUENCE (SIZE (1..maxNrOfMBMSServices)) OF TMGI

MBMS-Bearer-ServiceItemFDD  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemFDD-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemFDD-PFL  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode        TransmissionMode    OPTIONAL,
    preferredFrequencyLayer     UARFCN          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemFDD-PFL-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemFDD-PFL-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemTDD  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemTDD-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MBMS-Bearer-ServiceItemTDD-PFL  ::=SEQUENCE{
    tmgi    TMGI,
    transmissionMode    TransmissionMode    OPTIONAL,
    preferredFrequencyLayer     UARFCN          OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { MBMS-Bearer-ServiceItemTDD-PFL-ExtIEs} } OPTIONAL,
    ...
}

MBMS-Bearer-ServiceItemTDD-PFL-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

MBMSChannelTypeInfo ::= SEQUENCE {
    tMGI                TMGI,
    pTM-Cell-List       PTMCellList     OPTIONAL,
    pTP-Cell-List       PTPCellList     OPTIONAL,
    not-Provided-Cell-List  NotProvidedCellList OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { { MBMSChannelTypeInfo-ExtIEs} } OPTIONAL,
    ...
}

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

MBMSChannelTypeCellList ::= SEQUENCE {
    c-ID                                C-ID,
    affectedUEInformationForMBMS        AffectedUEInformationForMBMS    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { MBMSChannelTypeCellList-ExtIEs} } OPTIONAL,
    ...
}

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


MBMSPreferredFreqLayerInfo  ::= SEQUENCE {
    tMGI                            TMGI,
    preferredFrequencyLayerInfo     PreferredFrequencyLayerInfo,
    iE-Extensions                   ProtocolExtensionContainer { { MBMSPreferredFreqLayerInfo-ExtIEs} } OPTIONAL,
    ...
}

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

********** next change **********


NotProvidedCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList

********** next change **********

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
```

```
PreferredFrequencyLayerInfo ::= SEQUENCE {
    defaultPreferredFrequency       UARFCN,
    additionalPreferredFrequency    AdditionalPreferredFrequency    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { PreferredFrequencyLayerInfo-ExtIEs} } OPTIONAL,
    ...
}

PreferredFrequencyLayerInfo-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

********** next change **********

```
ProvidedInformation ::= SEQUENCE {
    mBMSChannelTypeInfo     MBMSChannelTypeInfo         OPTIONAL,
    mBMSPreferredFreqLayerInfo  MBMSPreferredFreqLayerInfo      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ProvideInformation-ExtIEs} } OPTIONAL,
    ...
}

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

PunctureLimit               ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100


PTMCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList

PTPCellList ::= SEQUENCE (SIZE (1..maxNrOfCells)) OF MBMSChannelTypeCellList
```

********** next change **********

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
id-uEMeasurementFailure                         ProcedureCode ::= 39
id-uEMeasurementInitiation                      ProcedureCode ::= 40
id-uEMeasurementReporting                       ProcedureCode ::= 41
id-uEMeasurementTermination                     ProcedureCode ::= 42
id-iurDeactivateTrace                           ProcedureCode ::= 43
id-iurInvokeTrace                               ProcedureCode ::= 44
id-mBMSAttach                                   ProcedureCode ::= 45
id-mBMSDetach                                   ProcedureCode ::= 46
id-mBMSChannelTypeReconfiguration               ProcedureCode ::= 47
id-DirectInformationTransfer                    ProcedureCode ::= XX

-- **************************************************************
--
-- 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
maxNrOfMBMSServices                     INTEGER ::= 128
maxNrOfActiveMBMSServices               INTEGER ::= 256
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
maxNrOfUEs                              INTEGER ::= 409616
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
maxNrOfSatAlmanac-maxNoSat              INTEGER ::= 16
maxNrOfGERANSI                          INTEGER ::= 8
maxNrOfInterfaces                       INTEGER ::= 16
maxNrofDDIs                             INTEGER ::= 63
maxNrofSigSeqERGHICH-1                  INTEGER ::= 39
maxNrOfCells                            INTEGER ::= 65536
maxNrOfAddFreq                          INTEGER ::= 8
maxNrOfCellsPerFreq                     INTEGER ::= 65536


-- ************************************************************
--
-- IEs
--
-- ************************************************************
```

```
id-AllowedQueuingTime                                   ProtocolIE-ID ::= 4
id-Allowed-Rate-Information                             ProtocolIE-ID ::= 42
id-AntennaColocationIndicator                           ProtocolIE-ID ::= 309
id-BindingID                                            ProtocolIE-ID ::= 5
id-C-ID                                                 ProtocolIE-ID ::= 6
id-C-RNTI                                               ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value                            ProtocolIE-ID ::= 303
id-CFN                                                  ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier                               ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier                               ProtocolIE-ID ::= 10
id-Cause                                                ProtocolIE-ID ::= 11
id-CoverageIndicator                                    ProtocolIE-ID ::= 310
id-CriticalityDiagnostics                               ProtocolIE-ID ::= 20
id-ContextInfoItem-Reset                                ProtocolIE-ID ::= 211
id-ContextGroupInfoItem-Reset                           ProtocolIE-ID ::= 515
id-D-RNTI                                               ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication                             ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD                                      ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD                                      ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD                      ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD                      ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD                      ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD                      ProtocolIE-ID ::= 33
id-DCH-FDD-Information                                  ProtocolIE-ID ::= 34
id-DCH-TDD-Information                                  ProtocolIE-ID ::= 35
id-FDD-DCHs-to-Modify                                   ProtocolIE-ID ::= 39
id-TDD-DCHs-to-Modify                                   ProtocolIE-ID ::= 40
id-DCH-InformationResponse                              ProtocolIE-ID ::= 43
id-DCH-Rate-InformationItem-RL-CongestInd                ProtocolIE-ID ::= 38
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD         ProtocolIE-ID ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD         ProtocolIE-ID ::= 45
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD             ProtocolIE-ID ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD        ProtocolIE-ID ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD         ProtocolIE-ID ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD            ProtocolIE-ID ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD         ProtocolIE-ID ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD      ProtocolIE-ID ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD             ProtocolIE-ID ::= 53
id-FDD-DL-CodeInformation                               ProtocolIE-ID ::= 54
id-DL-DPCH-Information-RL-ReconfPrepFDD                 ProtocolIE-ID ::= 59
id-DL-DPCH-Information-RL-SetupRqstFDD                  ProtocolIE-ID ::= 60
id-DL-DPCH-Information-RL-ReconfRqstFDD                 ProtocolIE-ID ::= 61
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD           ProtocolIE-ID ::= 62
id-DL-DPCH-InformationItem-RL-AdditionRspTDD            ProtocolIE-ID ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD               ProtocolIE-ID ::= 64
id-DL-DPCH-TimingAdjustment                             ProtocolIE-ID ::= 278
id-DLReferencePower                                     ProtocolIE-ID ::= 67
id-DLReferencePowerList-DL-PC-Rqst                      ProtocolIE-ID ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rqst               ProtocolIE-ID ::= 69
```

```
id-DPC-Mode
id-DRXCycleLengthCoefficient
id-DedicatedMeasurementObjectType-DM-Fail-Ind
id-DedicatedMeasurementObjectType-DM-Fail
id-DedicatedMeasurementObjectType-DM-Rprt
id-DedicatedMeasurementObjectType-DM-Rqst
id-DedicatedMeasurementObjectType-DM-Rsp
id-DedicatedMeasurementType
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
id-Guaranteed-Rate-Information
id-IMSI
id-HCS-Prio
id-L3-Information
id-AdjustmentPeriod
id-MaxAdjustmentStep
id-MeasurementFilterCoefficient
id-MessageStructure
id-MeasurementID
id-Neighbouring-GSM-CellInformation
id-Neighbouring-UMTS-CellInformationItem
id-NRT-Load-Information-Value
id-NRT-Load-Information-Value-IncrDecrThres
id-PagingArea-PagingRqst
id-FACH-FlowControlInformation
id-PartialReportingIndicator
id-Permanent-NAS-UE-Identity
id-PowerAdjustmentType
id-RANAP-RelocationInformation
id-RL-Information-PhyChReconfRqstFDD
id-RL-Information-PhyChReconfRqstTDD
id-RL-Information-RL-AdditionRqstFDD
id-RL-Information-RL-AdditionRqstTDD
id-RL-Information-RL-DeletionRqst
id-RL-Information-RL-FailureInd
id-RL-Information-RL-ReconfPrepFDD
id-RL-Information-RL-RestoreInd
id-RL-Information-RL-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
```

```
ProtocolIE-ID ::= 12
ProtocolIE-ID ::= 70
ProtocolIE-ID ::= 470
ProtocolIE-ID ::= 471
ProtocolIE-ID ::= 71
ProtocolIE-ID ::= 72
ProtocolIE-ID ::= 73
ProtocolIE-ID ::= 74
ProtocolIE-ID ::= 82
ProtocolIE-ID ::= 83
ProtocolIE-ID ::= 41
ProtocolIE-ID ::= 84
ProtocolIE-ID ::= 311
ProtocolIE-ID ::= 85
ProtocolIE-ID ::= 90
ProtocolIE-ID ::= 91
ProtocolIE-ID ::= 92
ProtocolIE-ID ::= 57
ProtocolIE-ID ::= 93
ProtocolIE-ID ::= 13
ProtocolIE-ID ::= 95
ProtocolIE-ID ::= 305
ProtocolIE-ID ::= 306
ProtocolIE-ID ::= 102
ProtocolIE-ID ::= 103
ProtocolIE-ID ::= 472
ProtocolIE-ID ::= 17
ProtocolIE-ID ::= 107
ProtocolIE-ID ::= 109
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ProtocolIE-ID ::= 55
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ProtocolIE-ID ::= 122
ProtocolIE-ID ::= 2
ProtocolIE-ID ::= 123
ProtocolIE-ID ::= 56
ProtocolIE-ID ::= 124
ProtocolIE-ID ::= 125
ProtocolIE-ID ::= 1
ProtocolIE-ID ::= 126
ProtocolIE-ID ::= 127
```

id-RL-InformationResponse-RL-ReconfReadyTDD	ProtocolIE-ID ::= 128
id-RL-InformationResponse-RL-SetupRspTDD	ProtocolIE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD	ProtocolIE-ID ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD	ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD	ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD	ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD	ProtocolIE-ID ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD	ProtocolIE-ID ::= 135
id-RL-InformationResponseList-RL-ReconfRspFDD	ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD	ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD	ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail	ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt	ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst	ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp	ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd	ProtocolIE-ID ::= 146
id-RL-Set-Information-RL-RestoreInd	ProtocolIE-ID ::= 147
id-RL-Set-Successful-InformationItem-DM-Fail	ProtocolIE-ID ::= 473
id-RL-Set-Unsuccessful-InformationItem-DM-Fail	ProtocolIE-ID ::= 474
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind	ProtocolIE-ID ::= 475
id-RL-Successful-InformationItem-DM-Fail	ProtocolIE-ID ::= 476
id-RL-Unsuccessful-InformationItem-DM-Fail	ProtocolIE-ID ::= 477
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind	ProtocolIE-ID ::= 478
id-ReportCharacteristics	ProtocolIE-ID ::= 152
id-Reporting-Object-RL-FailureInd	ProtocolIE-ID ::= 153
id-Reporing-Object-RL-RestoreInd	ProtocolIE-ID ::= 154
id-RT-Load-Value	ProtocolIE-ID ::= 307
id-RT-Load-Value-IncrDecrThres	ProtocolIE-ID ::= 308
id-S-RNTI	ProtocolIE-ID ::= 155
id-ResetIndicator	ProtocolIE-ID ::= 244
id-RNC-ID	ProtocolIE-ID ::= 245
id-SAI	ProtocolIE-ID ::= 156
id-SRNC-ID	ProtocolIE-ID ::= 157
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD	ProtocolIE-ID ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD	ProtocolIE-ID ::= 160
id-TransportBearerID	ProtocolIE-ID ::= 163
id-TransportBearerRequestIndicator	ProtocolIE-ID ::= 164
id-TransportLayerAddress	ProtocolIE-ID ::= 165
id-TypeOfError	ProtocolIE-ID ::= 140
id-UC-ID	ProtocolIE-ID ::= 166
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD	ProtocolIE-ID ::= 167
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 169
id-UL-CCTrCH-InformationItem-RL-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

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id-UL-DPCH-InformationItem-PhyChReconfRqstTDD                    ProtocolIE-ID ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD                     ProtocolIE-ID ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD                        ProtocolIE-ID ::= 182
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD                ProtocolIE-ID ::= 183
id-UL-SIRTarget                                                  ProtocolIE-ID ::= 184
id-URA-Information                                               ProtocolIE-ID ::= 185
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD      ProtocolIE-ID ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD         ProtocolIE-ID ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD         ProtocolIE-ID ::= 190
id-Active-Pattern-Sequence-Information                           ProtocolIE-ID ::= 193
id-AdjustmentRatio                                               ProtocolIE-ID ::= 194
id-CauseLevel-RL-AdditionFailureFDD                              ProtocolIE-ID ::= 197
id-CauseLevel-RL-AdditionFailureTDD                              ProtocolIE-ID ::= 198
id-CauseLevel-RL-ReconfFailure                                   ProtocolIE-ID ::= 199
id-CauseLevel-RL-SetupFailureFDD                                 ProtocolIE-ID ::= 200
id-CauseLevel-RL-SetupFailureTDD                                 ProtocolIE-ID ::= 201
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD              ProtocolIE-ID ::= 205
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD              ProtocolIE-ID ::= 206
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD              ProtocolIE-ID ::= 207
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD              ProtocolIE-ID ::= 208
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD              ProtocolIE-ID ::= 209
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD              ProtocolIE-ID ::= 210
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD                ProtocolIE-ID ::= 212
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD             ProtocolIE-ID ::= 213
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD             ProtocolIE-ID ::= 214
id-DSCHs-to-Add-TDD                                              ProtocolIE-ID ::= 215
id-DSCHs-to-Add-FDD                                              ProtocolIE-ID ::= 216
id-DSCH-DeleteList-RL-ReconfPrepTDD                              ProtocolIE-ID ::= 217
id-DSCH-Delete-RL-ReconfPrepFDD                                  ProtocolIE-ID ::= 218
id-DSCH-FDD-Information                                          ProtocolIE-ID ::= 219
id-DSCH-InformationListIE-RL-AdditionRspTDD                      ProtocolIE-ID ::= 220
id-DSCH-InformationListIEs-RL-SetupRspTDD                        ProtocolIE-ID ::= 221
id-DSCH-TDD-Information                                          ProtocolIE-ID ::= 222
id-DSCH-FDD-InformationResponse                                  ProtocolIE-ID ::= 223
id-DSCH-Information-RL-SetupRqstFDD                              ProtocolIE-ID ::= 226
id-DSCH-ModifyList-RL-ReconfPrepTDD                              ProtocolIE-ID ::= 227
id-DSCH-Modify-RL-ReconfPrepFDD                                  ProtocolIE-ID ::= 228
id-DSCH-Specific-FDD-Additional-List                             ProtocolIE-ID ::= 324
id-DSCHsToBeAddedOrModified-FDD                                  ProtocolIE-ID ::= 229
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
```

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id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD                    ProtocolIE-ID ::= 261
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD                    ProtocolIE-ID ::= 262
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD                    ProtocolIE-ID ::= 263
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD                   ProtocolIE-ID ::= 264
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD                   ProtocolIE-ID ::= 265
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD            ProtocolIE-ID ::= 266
id-USCHs-to-Add                                                        ProtocolIE-ID ::= 267
id-USCH-DeleteList-RL-ReconfPrepTDD                                    ProtocolIE-ID ::= 268
id-USCH-InformationListIE-RL-AdditionRspTDD                            ProtocolIE-ID ::= 269
id-USCH-InformationListIEs-RL-SetupRspTDD                              ProtocolIE-ID ::= 270
id-USCH-Information                                                    ProtocolIE-ID ::= 271
id-USCH-ModifyList-RL-ReconfPrepTDD                                    ProtocolIE-ID ::= 272
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD                       ProtocolIE-ID ::= 273
id-DL-Physical-Channel-Information-RL-SetupRqstTDD                     ProtocolIE-ID ::= 274
id-UL-Physical-Channel-Information-RL-SetupRqstTDD                     ProtocolIE-ID ::= 275
id-ClosedLoopMode1-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
```

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id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD                ProtocolIE-ID ::= 87
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD                    ProtocolIE-ID ::= 88
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD                ProtocolIE-ID ::= 89
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD                    ProtocolIE-ID ::= 94
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD                    ProtocolIE-ID ::= 96
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD                    ProtocolIE-ID ::= 97
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD               ProtocolIE-ID ::= 98
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD          ProtocolIE-ID ::= 100
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD               ProtocolIE-ID ::= 101
id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD          ProtocolIE-ID ::= 104
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD               ProtocolIE-ID ::= 105
id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD               ProtocolIE-ID ::= 106
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD                            ProtocolIE-ID ::= 138
id-TSTD-Support-Indicator-RL-SetupRqstTDD                           ProtocolIE-ID ::= 139
id-RestrictionStateIndicator                                        ProtocolIE-ID ::= 142
id-Load-Value                                                       ProtocolIE-ID ::= 233
id-Load-Value-IncrDecrThres                                         ProtocolIE-ID ::= 234
id-OnModification                                                   ProtocolIE-ID ::= 235
id-Received-Total-Wideband-Power-Value                              ProtocolIE-ID ::= 236
id-Received-Total-Wideband-Power-Value-IncrDecrThres                ProtocolIE-ID ::= 237
id-SFNSFNMeasurementThresholdInformation                            ProtocolIE-ID ::= 238
id-Transmitted-Carrier-Power-Value                                  ProtocolIE-ID ::= 239
id-Transmitted-Carrier-Power-Value-IncrDecrThres                    ProtocolIE-ID ::= 240
id-TUTRANGPSMeasurementThresholdInformation                         ProtocolIE-ID ::= 241
id-UL-Timeslot-ISCP-Value                                           ProtocolIE-ID ::= 242
id-UL-Timeslot-ISCP-Value-IncrDecrThres                             ProtocolIE-ID ::= 243
id-Rx-Timing-Deviation-Value-LCR                                    ProtocolIE-ID ::= 293
id-DPC-Mode-Change-SupportIndicator                                 ProtocolIE-ID ::= 19
id-SplitType                                                        ProtocolIE-ID ::= 247
id-LengthOfTFCI2                                                    ProtocolIE-ID ::= 295
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD                               ProtocolIE-ID ::= 202
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD                           ProtocolIE-ID ::= 203
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD                ProtocolIE-ID ::= 204
id-DSCH-RNTI                                                        ProtocolIE-ID ::= 249
id-DL-PowerBalancing-Information                                    ProtocolIE-ID ::= 296
id-DL-PowerBalancing-ActivationIndicator                            ProtocolIE-ID ::= 297
id-DL-PowerBalancing-UpdatedIndicator                               ProtocolIE-ID ::= 298
id-DL-ReferencePowerInformation                                     ProtocolIE-ID ::= 299
id-Enhanced-PrimaryCPICH-EcNo                                       ProtocolIE-ID ::= 224
id-IPDL-TDD-ParametersLCR                                           ProtocolIE-ID ::= 252
id-CellCapabilityContainer-FDD                                      ProtocolIE-ID ::= 300
id-CellCapabilityContainer-TDD                                      ProtocolIE-ID ::= 301
id-CellCapabilityContainer-TDD-LCR                                  ProtocolIE-ID ::= 302
id-RL-Specific-DCH-Info                                             ProtocolIE-ID ::= 317
id-RL-ReconfigurationRequestFDD-RL-InformationList                  ProtocolIE-ID ::= 318
id-RL-ReconfigurationRequestFDD-RL-Information-IEs                  ProtocolIE-ID ::= 319
id-RL-ReconfigurationRequestTDD-RL-Information                      ProtocolIE-ID ::= 321
id-CommonTransportChannelResourcesInitialisationNotRequired         ProtocolIE-ID ::= 250
id-DelayedActivation                                                ProtocolIE-ID ::= 312
id-DelayedActivationList-RL-ActivationCmdFDD                        ProtocolIE-ID ::= 313
id-DelayedActivationInformation-RL-ActivationCmdFDD                 ProtocolIE-ID ::= 314
```

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id-DelayedActivationList-RL-ActivationCmdTDD                                ProtocolIE-ID ::= 315
id-DelayedActivationInformation-RL-ActivationCmdTDD                         ProtocolIE-ID ::= 316
id-neighbouringTDDCellMeasurementInformationLCR                             ProtocolIE-ID ::= 251
id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD                      ProtocolIE-ID ::= 150
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD                  ProtocolIE-ID ::= 151
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                             ProtocolIE-ID ::= 451
id-HSDSCH-FDD-Information                                                   ProtocolIE-ID ::= 452
id-HSDSCH-FDD-Information-Response                                          ProtocolIE-ID ::= 453
id-HSDSCH-FDD-Update-Information                                            ProtocolIE-ID ::= 466
id-HSDSCH-Information-to-Modify                                             ProtocolIE-ID ::= 456
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd              ProtocolIE-ID ::= 516
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd              ProtocolIE-ID ::= 517
id-HSDSCH-RNTI                                                              ProtocolIE-ID ::= 457
id-HSDSCH-TDD-Information                                                   ProtocolIE-ID ::= 458
id-HSDSCH-TDD-Information-Response                                          ProtocolIE-ID ::= 459
id-HSDSCH-TDD-Update-Information                                            ProtocolIE-ID ::= 467
id-HSPDSCH-RL-ID                                                            ProtocolIE-ID ::= 463
id-HSDSCH-MACdFlows-to-Add                                                  ProtocolIE-ID ::= 531
id-HSDSCH-MACdFlows-to-Delete                                               ProtocolIE-ID ::= 532
id-Angle-Of-Arrival-Value-LCR                                               ProtocolIE-ID ::= 148
id-TrafficClass                                                             ProtocolIE-ID ::= 158
id-TFCI-PC-SupportIndicator                                                 ProtocolIE-ID ::= 248
id-Qth-Parameter                                                            ProtocolIE-ID ::= 253
id-PDSCH-RL-ID                                                              ProtocolIE-ID ::= 323
id-TimeSlot-RL-SetupRspTDD                                                  ProtocolIE-ID ::= 325
id-GERAN-Cell-Capability                                                    ProtocolIE-ID ::= 468
id-GERAN-Classmark                                                          ProtocolIE-ID ::= 469
id-DSCH-InitialWindowSize                                                   ProtocolIE-ID ::= 480
id-UL-Synchronisation-Parameters-LCR                                        ProtocolIE-ID ::= 464
id-SNA-Information                                                          ProtocolIE-ID ::= 479
id-MAChs-ResetIndicator                                                     ProtocolIE-ID ::= 465
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD               ProtocolIE-ID ::= 481
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD               ProtocolIE-ID ::= 482
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                               ProtocolIE-ID ::= 483
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD                             ProtocolIE-ID ::= 484
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD                             ProtocolIE-ID ::= 485
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD                             ProtocolIE-ID ::= 486
id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD                             ProtocolIE-ID ::= 487
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD               ProtocolIE-ID ::= 488
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD            ProtocolIE-ID ::= 489
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 490
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD              ProtocolIE-ID ::= 491
id-UL-TimingAdvanceCtrl-LCR                                                 ProtocolIE-ID ::= 492
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD                      ProtocolIE-ID ::= 493
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD                   ProtocolIE-ID ::= 494
id-HS-SICH-Reception-Quality                                                ProtocolIE-ID ::= 495
id-HS-SICH-Reception-Quality-Measurement-Value                              ProtocolIE-ID ::= 496
id-HSSICH-Info-DM-Rprt                                                      ProtocolIE-ID ::= 497
id-HSSICH-Info-DM-Rqst                                                      ProtocolIE-ID ::= 498
id-HSSICH-Info-DM                                                           ProtocolIE-ID ::= 499
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD                                   ProtocolIE-ID ::= 500
```

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id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD                                  ProtocolIE-ID ::= 501
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD                               ProtocolIE-ID ::= 502
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD                               ProtocolIE-ID ::= 503
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD                               ProtocolIE-ID ::= 504
id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD                               ProtocolIE-ID ::= 505
id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD    ProtocolIE-ID ::= 506
id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD    ProtocolIE-ID ::= 507
id-DL-CCTrCH-InformationList-RL-ReconfRspTDD                               ProtocolIE-ID ::= 508
id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD                       ProtocolIE-ID ::= 509
id-Maximum-DL-Power-TimeslotLCR-InformationItem                            ProtocolIE-ID ::= 510
id-Minimum-DL-Power-TimeslotLCR-InformationItem                            ProtocolIE-ID ::= 511
id-TDD-Support-8PSK                                                        ProtocolIE-ID ::= 512
id-TDD-maxNrDLPhysicalchannels                                             ProtocolIE-ID ::= 513
id-ExtendedGSMCellIndividualOffset                                         ProtocolIE-ID ::= 514
id-RL-ParameterUpdateIndicationFDD-RL-InformationList                      ProtocolIE-ID ::= 518
id-Primary-CPICH-Usage-For-Channel-Estimation                              ProtocolIE-ID ::= 519
id-Secondary-CPICH-Information                                             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-TnlQos                                                                  ProtocolIE-ID ::= 534
id-RTLoadValue                                                             ProtocolIE-ID ::= 535
id-NRTLoadInformationValue                                                 ProtocolIE-ID ::= 536
id-CellPortionID                                                           ProtocolIE-ID ::= 537
id-UpPTSInterferenceValue                                                  ProtocolIE-ID ::= 538
id-PrimaryCCPCH-RSCP-Delta                                                 ProtocolIE-ID ::= 539
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
id-InterfacesToTraceItem                                                   ProtocolIE-ID ::= 546
id-ListOfInterfacesToTrace                                                 ProtocolIE-ID ::= 547
id-TraceDepth                                                              ProtocolIE-ID ::= 548
id-TraceRecordingSessionReference                                          ProtocolIE-ID ::= 549
id-TraceReference                                                          ProtocolIE-ID ::= 550
id-UEIdentity                                                              ProtocolIE-ID ::= 551
id-NACC-Related-Data                                                       ProtocolIE-ID ::= 552
id-GSM-Cell-InfEx-Rqst                                                     ProtocolIE-ID ::= 553
id-MeasurementRecoveryBehavior                                             ProtocolIE-ID ::= 554
id-MeasurementRecoveryReportingIndicator                                   ProtocolIE-ID ::= 555
id-MeasurementRecoverySupportIndicator                                     ProtocolIE-ID ::= 556
```

```
id-DL-DPCH-Power-Information-RL-ReconfPrepFDD                    ProtocolIE-ID ::= 557
id-F-DPCH-Information-RL-ReconfPrepFDD                           ProtocolIE-ID ::= 558
id-F-DPCH-Information-RL-SetupRqstFDD                            ProtocolIE-ID ::= 559
id-MBMS-Bearer-Service-List                                      ProtocolIE-ID ::= 560
id-MBMS-Bearer-Service-List-InfEx-Rsp                            ProtocolIE-ID ::= 561
id-Active-MBMS-Bearer-ServiceFDD                                 ProtocolIE-ID ::= 562
id-Active-MBMS-Bearer-ServiceTDD                                 ProtocolIE-ID ::= 563
id-Old-URA-ID                                                    ProtocolIE-ID ::= 564
id-TMGI                                                          ProtocolIE-ID ::= 565
id-TransmissionMode                                              ProtocolIE-ID ::= 566
id-AffectedUEInformationForMBMS                                  ProtocolIE-ID ::= 567
id-UE-State                                                      ProtocolIE-ID ::= 568
id-URA-ID                                                        ProtocolIE-ID ::= 569
id-DRNC-ID                                                       ProtocolIE-ID ::= 570
id-HARQ-Preamble-Mode                                            ProtocolIE-ID ::= 571
id-UL-DPDCHIndicatorEDCH                                         ProtocolIE-ID ::= 573
id-EDPCH-Information                                             ProtocolIE-ID ::= 574
id-RL-Specific-EDCH-Information                                  ProtocolIE-ID ::= 575
id-EDCH-RL-Indication                                            ProtocolIE-ID ::= 576
id-EDCH-FDD-Information                                          ProtocolIE-ID ::= 577
id-EDCH-RLSet-Id                                                 ProtocolIE-ID ::= 578
id-Serving-EDCHRL-Id                                             ProtocolIE-ID ::= 579
id-EDCH-FDD-DL-ControlChannelInformation                         ProtocolIE-ID ::= 580
id-EDCH-FDD-InformationResponse                                  ProtocolIE-ID ::= 581
id-EDCH-MACdFlows-To-Add                                         ProtocolIE-ID ::= 582
id-EDCH-FDD-Information-To-Modify                                ProtocolIE-ID ::= 583
id-EDCH-MACdFlows-To-Delete                                      ProtocolIE-ID ::= 584
id-EDPCH-Information-RLReconfRequest-FDD                         ProtocolIE-ID ::= 585
id-EDCH-MacdFlowSpecificInformationList-RL-PreemptRequiredInd    ProtocolIE-ID ::= 586
id-EDCH-MacdFlowSpecificInformationItem-RL-PreemptRequiredInd    ProtocolIE-ID ::= 587
id-EDCH-MacdFlowSpecificInformationList-RL-CongestInd            ProtocolIE-ID ::= 588
id-EDCH-MacdFlowSpecificInformationItem-RL-CongestInd            ProtocolIE-ID ::= 589
id-MBMS-Bearer-Service-Full-Address                              ProtocolIE-ID ::= 590
id-Initial-DL-DPCH-TimingAdjustment                              ProtocolIE-ID ::= 591
id-Initial-DL-DPCH-TimingAdjustment-Allowed                      ProtocolIE-ID ::= 592
id-ProvidedInformation                                           ProtocolIE-ID ::= XXX
id-Active-MBMS-Bearer-ServiceFDD-PFL                             ProtocolIE-ID ::= YYY
id-Active-MBMS-Bearer-ServiceTDD-PFL                             ProtocolIE-ID ::= ZZZ


END
```

3GPP TSG-RAN WG3 Meeting #47
Athens, Greece, 9th – 13th May 2005

TDoc ⌘R3-050704

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.433** **CR** **1124** ⌘ **rev** **1** ⌘ Current version: **6.5.0** ⌘

*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 [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Synchronisation for MBMS p-t-m Transmissions from Multiple Cells (Simulcast)
Source:	⌘	RAN3
Work item code:	⌘	MBMS-RAN
Date:	⌘	11/05/2005
Category:	⌘	**C**
Release:	⌘	Rel-6

Use one 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 one of the following releases:

Ph2	*(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)*
Rel-7	*(Release 7)*

Reason for change:	⌘	For support of MBMS soft combining in the UE, relative timing difference of transmissions from different cells has to be limited. This CR introduces a corresponding offset for S-CCPCH in FDD mode.
Summary of change:	⌘	Option to apply an *FDD SCCPCH Frame Offset* added
Consequences if not approved:	⌘	Limitations in synchronisation of MBMS p-t-m transmissions

Clauses affected:	⌘	8.2.1, 9.1.3.1, 9.2.2.x (new), 9.3 (ASN.1)			
Other specs affected:	⌘	**Y** / **N**	Other core specifications	⌘	25.331CR2614, 25402CR50
		X /	Test specifications		
		/ X	O&M Specifications		
Other comments:	⌘				

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.

8.2.1 Common Transport Channel Setup

8.2.1.1 General

This procedure is used for establishing the necessary resources in Node B, regarding Secondary CCPCH, PICH, PRACH, PCPCH [FDD], AICH [FDD], AP_AICH [FDD], CD/CA-ICH [FDD], FACH, PCH, RACH, FPACH [1.28Mcps TDD] and CPCH [FDD].

8.2.1.2 Successful Operation

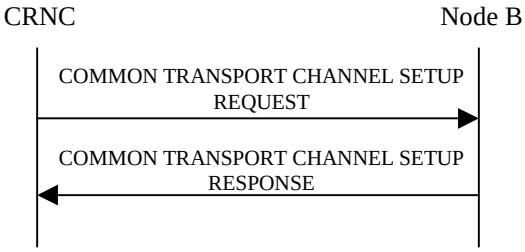

Figure 1: Common Transport Channel Setup procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD - one Secondary CCPCH, and FACHs, PCH, PICH and MICH related to that Secondary CCPCH], or
- [TDD - one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH and MICH related to that group of Secondary CCPCHs], or
- one [1.28Mcps TDD - or more] PRACH, one RACH and one AICH [FDD] and one FPACH[1.28Mcps TDD] related to that PRACH.
- [FDD - PCPCHs, one CPCH, one AP_AICH and one CD/CA-ICH related to that group of PCPCHs.]

Secondary CCPCH:

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[FDD – If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FDD S-CCPCH Frame Offset* IE within the *Secondary CCPCH* IE, the Node B shall apply the indicated frame offset for the concerned Secondary CCPCH.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[TDD - FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FACH Parameters* IE, the Node B shall configure and activate the indicated FACH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PCH Parameters* IE, the Node B shall configure and activate the concerned PCH and the associated PICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - If the *PCH Power* IE is included in the *PCH Parameters* IE of the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall use this value as the power at which the PCH shall be transmitted.]

[TDD - If the *TSTD Indicator* IE for the S-CCPCH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall activate TSTD diversity for all S-CCPCHs defined in the message that are not beacon channels [19,21]. If the *TSTD Indicator* IE is not included or is set to "not active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall not activate TSTD diversity for the S-CCPCHs defined in the message.]

[1.28Mcps TDD - If the *TSTD Indicator* IE for the PICH is included and is set to "active" in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall activate TSTD diversity for the PICH if it is not a beacon channel [19,21]. If the *TSTD Indicator* IE is set to "not active" or the *TSTD Indicator* IE is not included for the PICH in the COMMON TRANSPORT CHANNEL SETUP REQUEST message, the Node B shall not activate TSTD diversity for the PICH.]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE, the Node B shall configure and activate the concerned MICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

PRACH:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PRACH* IE, the Node B shall configure and activate the indicated PRACH and the associated RACH [FDD - and the associated AICH] according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD - FPACH]:

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FPACH* IE, the Node B shall configure and activate the indicated FPACH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

Where more than one FPACH is defined, the FPACH that Node B should use is defined by the UpPCH signature (SYNC_UL) code that the UE used. The FPACH number = N mod M where N denotes the signature number (0..7) and M denotes the number of FPACHs that are defined in a cell. The FPACH number is in ascending order by *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[FDD - PCPCHs]:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *CPCH Parameters* IE, the Node B shall configure and activate the indicated CPCH and the associated PCPCH(s), AP-AICH and CD/CA-ICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *CD Signatures* IE, the Node B may use only the given CD signatures on CD/CA-ICH. Otherwise, the Node B may use all the CD signatures on CD/CA-ICH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *CD Sub Channel Numbers* IE, the Node B may use only the given CD Sub Channels on CD/CA-ICH. Otherwise, the Node B may use all the CD Sub Channels on CD/CA-ICH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *Channel Request Parameters* IE, the Node B shall use the parameters to distinguish the PCPCHs.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *AP Sub Channel Number* IE in *Channel Request Parameters* IE, the Node B shall use only these AP sub channel number to distinguish the configured PCPCH. Otherwise all AP subchannel numbers are used to distinguish the configured PCPCH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *AP Sub Channel Number* IE in *SF Request Parameters* IE, the Node B shall use only these AP sub channel number to distinguish the requested Spreading Factors. Otherwise all AP subchannel numbers are used to distinguish the configured Spreading Factor.

General:

After successfully configuring the requested common transport channels and the common physical channels , the Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the *Common Transport Channel ID* IE, the *Binding ID* IE and the *Transport Layer Address* IE for the configured common transport channels.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes the *Transport Layer Address* and *Binding ID* IEs, the Node B may use the transport layer adress and the binding identifier received from the CRNC when establishing a transport bearer for the indicated common transport channels.

After a successful procedure and once the transport bearers are established, the configured common transport channels and the common physical channels shall adopt the state Enabled [6] in the Node B and the common physical channels exist on the Uu interface.

8.2.1.3 Unsuccessful Operation

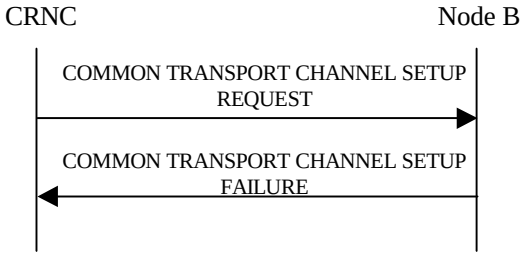

Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with a COMMON TRANSPORT CHANNEL SETUP FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause:

- Cell not available
- Power level not supported
- Node B Resources unavailable
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Common Transport Channel Type not supported
- MICH not supported

Transport Layer Cause:

- Transport Resources Unavailable

Miscellaneous Cause:

- O&M Intervention
- Control processing overload
- HW failure

8.2.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, and that IE contains [FDD - neither the *FACH Parameters* IE nor the *PCH Parameters* IE] [TDD – neither the *FACH* IE nor the *PCH* IE], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

[FDD - If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *CD Sub Channel Numbers* IE, but the *CD Signatures* IE is not present, then the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.]

[TDD - If the *FACH CCTrCH Id* IE or the *PCH CCTrCH Id* IE does not equal the *SCCPCH CCTrCH Id* IE, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[TDD - If the *TDD Physical Channel Offset* IE, the *Repetition Period* IE, and the *Repetition Length* IE are not equal for each SCCPCH configured within the CCTrCH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD - If the *Common Transport Channel ID* IE, and the *Transport Format Set* IE are not equal for each RACH configured in PRACH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

If the state is already Enabled or Disabled [6] for at least one channel in the COMMON TRANSPORT CHANNEL SETUP REQUEST message which is received, the Node B shall reject the configuration of all channels with the *Cause* IE set to "Message not compatible with receiver state".

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

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *MICH Parameters* IE but not the *FACH Parameters* IE [FDD – for one S-CCPCH], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE *Common Physical Channel To Be Configured*	M				YES	ignore
>*Secondary CCPCH*					–	
>>Secondary CCPCH		*1*			–	
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>FDD SCCPCH Offset	M		9.2.2.15	Corresponds to [7]: $S\text{-}CCPCH,k$	–	
>>>DL Scrambling Code	C-PCH		9.2.2.13		–	
>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>TFCS	M		9.2.1.58	For the DL.	–	
>>>Secondary CCPCH Slot Format	M		9.2.2.43		–	
>>>TFCI Presence	C-SlotFormat		9.2.1.57	Refer to TS [7]	–	
>>>Multiplexing Position	M		9.2.2.23		–	
>>>Power Offset Information		*1*			–	
>>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>>STTD Indicator	M		9.2.2.48		–	
>>>FACH Parameters		*0..<maxnoofFACHs>*			GLOBAL	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>>ToAWS	M		9.2.1.61		–	
>>>>ToAWE	M		9.2.1.60		–	
>>>>Max FACH Power	M		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer	O		9.2.1.63	Shall be	YES	ignore

Address				ignored if bearer establishment with ALCAP.		
>>>PCH Parameters		*0..1*			YES	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>>ToAWS	M		9.2.1.61		–	
>>>>ToAWE	M		9.2.1.60		–	
>>>>PCH Power	M		DL Power 9.2.1.21		–	
>>>>PICH Parameters		*1*			–	
>>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>>PICH Power	M		9.2.1.49A		–	
>>>>>PICH Mode	M		9.2.2.26	Number of PI per frame	–	
>>>>>STTD Indicator	M		9.2.2.48		–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>MICH Parameters		*0..1*			YES	reject
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>MICH Power	M		PICH Power 9.2.1.49A		–	
>>>>MICH Mode	M		9.2.2.21D	Number of NI per frame	–	
>>>>STTD Indicator	M		9.2.2.48		–	
>>>FDD S-CCPCH Frame Offset	O		9.2.2.x		YES	reject
>PRACH					–	
>>PRACH		*1*			–	
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>Scrambling Code Number	M		9.2.2.42		–	
>>>TFCS	M		9.2.1.58	For the UL.	–	
>>>Preamble Signatures	M		9.2.2.31		–	

>>>Allowed Slot Format Information		*1..<maxnoofSlotFormatsPRACH>*			–	
>>>>RACH Slot Format	M		9.2.2.37		–	
>>>RACH Sub Channel Numbers	M		9.2.2.38		–	
>>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>>Preamble Threshold	M		9.2.2.32		–	
>>>RACH Parameters		*1*			YES	reject
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>AICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>AICH Transmission Timing	M		9.2.2.1		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>AICH Power	M		9.2.2.D		–	
>>>>STTD Indicator	M		9.2.2.48		–	
>PCPCHs					–	
>>CPCH Parameters		*1*			–	
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>AP Preamble Scrambling Code	M		CPCH Scrambling Code Number 9.2.2.4B		–	
>>>CD Preamble Scrambling Code	M		CPCH Scrambling Code Number 9.2.2.4B		–	
>>>TFCS	M		9.2.1.58	For the UL	–	
>>>CD Signatures	O		Preamble Signatures 9.2.2.31	Note: When not present, all CD signatures are to be used.	–	
>>>CD Sub Channel Numbers	O		9.2.2.1C		–	

>>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>>CPCH UL DPCCH Slot Format	M		9.2.2.4C	For UL CPCH message control part	–	
>>>UL SIR	M		9.2.1.67A		–	
>>>Initial DL Transmission Power	M		DL Power 9.2.1.21		–	
>>>Maximum DL Power	M		DL Power 9.2.1.21		–	
>>>Minimum DL Power	M		DL Power 9.2.1.21		–	
>>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits relative to the pilot bits.	–	
>>>FDD TPC DL Step Size	M		9.2.2.16		–	
>>>N_Start_Message	M		9.2.2.23C		–	
>>>N_EOT	M		9.2.2.23A		–	
>>>Channel Assignment Indication	M		9.2.2.1D		–	
>>>CPCH Allowed Total Rate	M		9.2.2.4A		–	
>>>PCPCH Channel Information		*1..<maxnoofPCPCHs>*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>CPCH Scrambling Code Number	M		9.2.2.4B	For UL PCPCH	–	
>>>>DL Scrambling Code	M		9.2.2.13	For DL CPCH message part	–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14	For DL CPCH message part	–	
>>>>PCP Length	M		9.2.2.24A		–	
>>>>UCSM Information	C-NCA	*1*			–	
>>>>>Min UL Channelisation Code Length	M		9.2.2.22		–	
>>>>>NF_max	M		9.2.2.23B		–	
>>>>>Channel Request Parameters		*0..<maxAPSigNum>*			–	
>>>>>>AP Preamble Signature	M		9.2.2.1A		–	
>>>>>AP Sub Channel Number	O		9.2.2.1B		–	
>>>VCAM Mapping Information	C-CA	*1..<maxnoofLen>*		Refer to TS [18]	–	
>>>>Min UL Channelisation Code Length	M		9.2.2.22		–	
>>>>NF_max	M		9.2.2.23B		–	
>>>>Max Number of	M		9.2.2.20A		–	

PCPCHs						
>>>>SF Request Parameters		*1..<maxAPSigNum>*			–	
>>>>>AP Preamble Signature	M		9.2.2.1A		–	
>>>>>AP Sub Channel Number	O		9.2.2.1B		–	
>>>AP-AICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>AP-AICH Power	M		AICH Power 9.2.2.D		–	
>>>>CSICH Power	M		AICH Power 9.2.2.D	For CSICH bits at end of AP-AICH slot	–	
>>>>STTD Indicator	M		9.2.2.48		–	
>>>CD/CA-ICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>CD/CA-ICH Power	M		AICH Power 9.2.2.D		–	
>>>>STTD Indicator	M		9.2.2.48		–	
>>>Binding ID	O		9.2.1.4	Shall be ignored if bearer establishment with ALCAP.	YES	ignore
>>>Transport Layer Address	O		9.2.1.63	Shall be ignored if bearer establishment with ALCAP.	YES	ignore

Condition	Explanation
SlotFormat	The IE shall be present if the *Secondary CCPCH Slot Format* IE is set to any of the values from 8 to 17.
CA	The IE shall be present if the *Channel Assignment Indication* IE is set to "CA Active".
NCA	The IE shall be present if the *Channel Assignment Indication* IE is set to "CA Inactive".
PCH	The IE shall be present if the *PCH Parameters* IE is not present.

Range Bound	Explanation
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH
maxnoofPCPCHs	Maximum number of PCPCHs for a CPCH
maxnoofLen	Maximum number of Min UL Channelisation Code Length
maxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH
maxAPSigNum	Maximum number of AP Signatures

9.2.2.14A FDD DL Code Information

The *FDD DL Code Information* IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Code Information		*1..<maxnoofCodes>*		
>DL Scrambling Code	M		9.2.2.13	
>FDD DL Channelisation Code Number	M		9.2.2.14	
>Transmission Gap Pattern Sequence Code Information	O		9.2.2.53B	

Range Bound	Explanation
maxnoofCodes	Maximum number of DL code information

9.2.2.x FDD S-CCPCH Frame Offset

The *FDD S-CCPCH Frame Offset* IE represents a frame offset between the concerned S-CCPCH's CFN (Connection Frame Number) relatively to the P-CCPCH's SFN (System Frame Number) of the respective cell. The *FDD S-CCPCH Frame Offset* IE shall be the constant difference between the S-CCPCH's CFN and the least significant 8 bits of the SFN (System Frame Number) on Uu.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD S-CCPCH Frame Offset			ENUMERATED (1, 2, 4,…)	Offset in frames (corresponding to 10msec, 20msec or 40msec offset in time)

9.2.2.15 FDD SCCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD SCCPCH Offset			INTEGER (0..149)	Unit: chip Range: 0..38144 chips Step: 256 chips See ref. [7]

9.2.2.16 FDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD TPC Downlink Step Size			ENUMERATED (0.5, 1, 1.5, 2,…)	Unit: dB

9.3.3 PDU Definitions

```
-- **************************************************************
--
-- PDU definitions for NBAP.
--
-- **************************************************************

NBAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- IE parameter types from other modules.
--
-- **************************************************************

IMPORTS
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-Power,
    AICH-TransmissionTiming,
    AllocationRetentionPriority,
    APPreambleSignature,
    APSubChannelNumber,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    SCTD-Indicator,
    Cause,
    CCTrCH-ID,
    CDSubChannelNumbers,
    CellParameterID,
    CellPortionID,
    CellSyncBurstCode,
    CellSyncBurstCodeShift,
    CellSyncBurstRepetitionPeriod,
    CellSyncBurstSIR,
    CellSyncBurstTiming,
    CellSyncBurstTimingThreshold,
    CFN,
    Channel-Assignment-Indication,
    ChipOffset,
    C-ID,
    Closedlooptimingadjustmentmode,
```

```
    CommonChannelsCapacityConsumptionLaw,
    Compressed-Mode-Deactivation-Flag,
    CommonMeasurementAccuracy,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonMeasurementValueInformation,
    CommonPhysicalChannelID,
    Common-PhysicalChannel-Status-Information,
    Common-TransportChannel-Status-Information,
    CommonTransportChannelID,
    CommonTransportChannel-InformationResponse,
    CommunicationControlPortID,
    ConfigurationGenerationID,
    ConstantValue,
    CriticalityDiagnostics,
    CPCH-Allowed-Total-Rate,
    CPCHScramblingCodeNumber,
    CPCH-UL-DPCCH-SlotFormat,
    CRNC-CommunicationContextID,
    CSBMeasurementID,
    CSBTransmissionID,
    DCH-FDD-Information,
    DCH-InformationResponse,
    DCH-ID,
    FDD-DCHs-to-Modify,
    TDD-DCHs-to-Modify,
    DCH-TDD-Information,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DedicatedMeasurementValueInformation,
    DelayedActivation,
    DelayedActivationUpdate,
    DiversityControlField,
    DiversityMode,
    DL-DPCH-SlotFormat,
    DL-DPCH-TimingAdjustment,
    DL-or-Global-CapacityCredit,
    DL-Power,
    DL-PowerBalancing-Information,
    DL-PowerBalancing-ActivationIndicator,
    DLPowerAveragingWindowSize,
    DL-PowerBalancing-UpdatedIndicator,
    DL-ScramblingCode,
    DL-TimeslotISCP,
    DL-Timeslot-Information,
    DL-TimeslotLCR-Information,
    DL-TimeslotISCPInfo,
    DL-TimeslotISCPInfoLCR,
    DL-TPC-Pattern01Count,
    DPC-Mode,
    DPCH-ID,
    DSCH-ID,
```

```
    DSCH-FDD-Common-Information,
    DSCH-FDD-Information,
    DSCH-InformationResponse,
    DSCH-TDD-Information,
    DwPCH-Power,
    E-AGCH-FDD-Code-Information,
    E-DCH-Capability,
    E-DCH-FDD-DL-Control-Channel-Information,
    E-DCH-FDD-Information,
    E-DCH-FDD-Information-Response,
    E-DCH-FDD-Information-to-Modify,
    E-DCH-MACdFlows-Information,
    E-DCH-MACdFlows-to-Delete,
    E-DCH-RL-Indication,
    E-RGCH-E-HICH-FDD-Code-Information,
    End-Of-Audit-Sequence-Indicator,
    EnhancedDSCHPC,
    EnhancedDSCHPCCounter,
    EnhancedDSCHPCIndicator,
    EnhancedDSCHPCWnd,
    EnhancedDSCHPowerOffset,
    E-TFCS,
    E-TTI,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-S-CCPCH-FrameOffset,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FPACH-Power,
    FrameAdjustmentValue,
    FrameHandlingPriority,
    FrameOffset,
    HSDPA-Capability,
    HS-PDSCH-FDD-Code-Information,
    HS-SCCH-ID,
    HS-SCCH-FDD-Code-Information,
    HS-SICH-ID,
    IB-OC-ID,
    IB-SG-DATA,
    IB-SG-POS,
    IB-SG-REP,
    IB-Type,
    InformationExchangeID,
    InformationReportCharacteristics,
    InformationType,
    Initial-DL-DPCH-TimingAdjustment-Allowed,
    InnerLoopDLPCStatus,
    IPDL-FDD-Parameters,
    IPDL-TDD-Parameters,
    IPDL-Indicator,
    IPDL-TDD-Parameters-LCR,
```

```
    LimitedPowerIncrease,
    Local-Cell-ID,
    MaximumDL-PowerCapability,
    Maximum-PDSCH-Power,
    MaximumTransmissionPower,
    Max-Number-of-PCPCHes,
    MaxNrOfUL-DPDCHs,
    MaxNrOfUL-E-DPDCHs,
    MaxPRACH-MidambleShifts,
    MeasurementFilterCoefficient,
    MeasurementID,
    MeasurementRecoveryBehavior,
    MeasurementRecoveryReportingIndicator,
    MeasurementRecoverySupportIndicator,
    MICH-CFN,
    MICH-Mode,
    MidambleAllocationMode,
    MidambleShiftAndBurstType,
    MidambleShiftLCR,
    MinimumDL-PowerCapability,
    MinSpreadingFactor,
    MinUL-ChannelisationCodeLength,
    MinUL-ChannelisationCodeLengthforE-DCH-FDD,
    Modification-Period,
    MultiplexingPosition,
    NEOT,
    NCyclesPerSFNperiod,
    NFmax,
    NRepetitionsPerCyclePeriod,
    N-INSYNC-IND,
    N-OUTSYNC-IND,
    NeighbouringCellMeasurementInformation,
    NeighbouringFDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation,
    NI-Information,
    NodeB-CommunicationContextID,
    NotificationIndicatorLength,
    NumberOfReportedCellPortions,
    NStartMessage,
    NSubCyclesPerCyclePeriod,
    PagingIndicatorLength,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PCP-Length,
    PDSCH-CodeMapping,
    PDSCHSet-ID,
    PDSCH-ID,
    PICH-Mode,
    PICH-Power,
    PowerAdjustmentType,
    PowerOffset,
    PowerRaiseLimit,
    PRACH-Midamble,
```

```
    PreambleSignatures,
    PreambleThreshold,
    PredictedSFNSFNDeviationLimit,
    PredictedTUTRANGPSDeviationLimit,
    PrimaryCPICH-Power,
    Primary-CPICH-Usage-for-Channel-Estimation,
    PrimaryScramblingCode,
    PropagationDelay,
    SCH-TimeSlot,
    PunctureLimit,
    PUSCHSet-ID,
    PUSCH-ID,
    QE-Selector,
    Qth-Parameter,
    RACH-SlotFormat,
    RACH-SubChannelNumbers,
    ReferenceClockAvailability,
    ReferenceSFNoffset,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    RequestedDataValue,
    RequestedDataValueInformation,
    ResourceOperationalState,
    RL-Set-ID,
    RL-ID,
    RL-Specific-DCH-Info,
    Received-total-wide-band-power-Value,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
    MaxAdjustmentStep,
    RNC-ID,
    ScramblingCodeNumber,
    Secondary-CPICH-Information-Change,
    SecondaryCCPCH-SlotFormat,
    Segment-Type,
    Serving-E-DCH-RL-ID,
    S-FieldLength,
    SFN,
    SFNSFNChangeLimit,
    SFNSFNDriftRate,
    SFNSFNDriftRateQuality,
    SFNSFNQuality,
    ShutdownTimer,
    SIB-Originator,
    SpecialBurstScheduling,
    SignallingBearerRequestIndicator,
    SSDT-Cell-Identity,
    SSDT-CellID-Length,
    SSDT-Indication,
    Start-Of-Audit-Sequence-Indicator,
    STTD-Indicator,
    SSDT-SupportIndicator,
```

```
    SyncCase,
    SYNCDlCodeId,
    SyncFrameNumber,
    SynchronisationReportCharacteristics,
    SynchronisationReportType,
    T-Cell,
    T-RLFAILURE,
    TDD-ChannelisationCode,
    TDD-ChannelisationCodeLCR,
    TDD-DL-Code-LCR-Information,
    TDD-DPCHOffset,
    TDD-TPC-DownlinkStepSize,
    TDD-PhysicalChannelOffset,
    TDD-UL-Code-LCR-Information,
    TFCI2-BearerInformationResponse,
    TFCI2BearerRequestIndicator,
    TFCI-Coding,
    TFCI-Presence,
    TFCI-SignallingMode,
    TFCS,
    TimeSlot,
    TimeSlotLCR,
    TimeSlotDirection,
    TimeSlotStatus,
    TimingAdjustmentValue,
    TimingAdvanceApplied,
    TnlQos,
    ToAWE,
    ToAWS,
    TransmissionDiversityApplied,
    TransmitDiversityIndicator,
    TransmissionGapPatternSequenceCodeInformation,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportBearerRequestIndicator,
    TransportFormatSet,
    TransportLayerAddress,
    TSTD-Indicator,
    TUTRANGPS,
    TUTRANGPSChangeLimit,
    TUTRANGPSDriftRate,
    TUTRANGPSDriftRateQuality,
    TUTRANGPSQuality,
    UARFCN,
    UC-Id,
    USCH-Information,
    USCH-InformationResponse,
    UL-CapacityCredit,
    UL-DPCCH-SlotFormat,
    UL-DPDCH-Indicator-For-E-DCH-Operation,
    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,
    UL-TimeslotISCP-Value,
    UL-TimeslotISCP-Value-IncrDecrThres,
    USCH-ID,
    HSDSCH-FDD-Information,
    HSDSCH-FDD-Information-Response,
    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,
    PrimaryCCPCH-RSCP,
    HSDSCH-FDD-Update-Information,
    HSDSCH-TDD-Update-Information,
    UL-Synchronisation-Parameters-LCR,
    TDD-DL-DPCH-TimeSlotFormat-LCR,
    TDD-UL-DPCH-TimeSlotFormat-LCR,
    TDD-TPC-UplinkStepSize-LCR,
    CellSyncBurstTimingLCR,
    TimingAdjustmentValueLCR,
    PrimaryCCPCH-RSCP-Delta
FROM NBAP-IEs

    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    ProtocolIE-ContainerList{},
    NBAP-PRIVATE-IES,
    NBAP-PROTOCOL-IES,
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers

    id-Active-Pattern-Sequence-Information,
    id-Additional-S-CCPCH-Parameters-CTCH-ReconfRqstTDD,
    id-Additional-S-CCPCH-Parameters-CTCH-SetupRqstTDD,
    id-Additional-S-CCPCH-LCR-Parameters-CTCH-ReconfRqstTDD,
    id-Additional-S-CCPCH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-AdjustmentRatio,
    id-AICH-Information,
    id-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-AP-AICH-Information,
    id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-BCH-Information,
    id-BCCH-ModificationTime,
    id-bindingID,
```

```
    id-BlockingPriorityIndicator,
    id-Cause,
    id-CauseLevel-PSCH-ReconfFailure,
    id-CauseLevel-RL-AdditionFailureFDD,
    id-CauseLevel-RL-AdditionFailureTDD,
    id-CauseLevel-RL-ReconfFailure,
    id-CauseLevel-RL-SetupFailureFDD,
    id-CauseLevel-RL-SetupFailureTDD,
    id-CauseLevel-SyncAdjustmntFailureTDD,
    id-CCP-InformationItem-AuditRsp,
    id-CCP-InformationList-AuditRsp,
    id-CCP-InformationItem-ResourceStatusInd,
    id-CCTrCH-InformationItem-RL-FailureInd,
    id-CCTrCH-InformationItem-RL-RestoreInd,
    id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD,
    id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD,
    id-CDCA-ICH-Information,
    id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-CellAdjustmentInfo-SyncAdjustmntRqstTDD,
    id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD,
    id-Cell-InformationItem-AuditRsp,
    id-Cell-InformationItem-ResourceStatusInd,
    id-Cell-InformationList-AuditRsp,
    id-CellParameterID,
    id-CellPortion-InformationItem-Cell-SetupRqstFDD,
    id-CellPortion-InformationList-Cell-SetupRqstFDD,
    id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD,
    id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD,
    id-cellSyncBurstRepetitionPeriod,
    id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD,
    id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD,
    id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD,
    id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
    id-CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    id-CellSyncInfo-CellSyncReprtTDD,
    id-CFN,
    id-CFNReportingIndicator,
    id-C-ID,
    id-Closed-Loop-Timing-Adjustment-Mode,
    id-CommonMeasurementAccuracy,
    id-CommonMeasurementObjectType-CM-Rprt,
    id-CommonMeasurementObjectType-CM-Rqst,
    id-CommonMeasurementObjectType-CM-Rsp,
    id-CommonMeasurementType,
    id-CommonPhysicalChannelID,
    id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD,
    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,
    id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
    id-CommunicationContextInfoItem-Reset,
    id-CommunicationControlPortID,
    id-CommunicationControlPortInfoItem-Reset,
    id-Compressed-Mode-Deactivation-Flag,
```

```
    id-ConfigurationGenerationID,
    id-CPCH-Information,
    id-CPCH-Parameters-CTCH-SetupRsp,
    id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-CRNC-CommunicationContextID,
    id-CriticalityDiagnostics,
    id-CSBTransmissionID,
    id-CSBMeasurementID,
    id-DCHs-to-Add-FDD,
    id-DCHs-to-Add-TDD,
    id-DCH-AddList-RL-ReconfPrepTDD,
    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-DCH-InformationResponse,
    id-DCH-RearrangeList-Bearer-RearrangeInd,
    id-DSCH-RearrangeList-Bearer-RearrangeInd,
    id-FDD-DCHs-to-Modify,
    id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD,
    id-TDD-DCHs-to-Modify,
    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-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,
    id-DL-DPCH-InformationList-RL-SetupRqstTDD,

--*** Unaffected ASN.1 omitted ***
```

```
-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
--
-- **************************************************************

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

CommonTransportChannelSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                 CRITICALITY reject      TYPE    C-ID                        PRESENCE mandatory   }|
    { ID    id-ConfigurationGenerationID            CRITICALITY reject      TYPE    ConfigurationGenerationID   PRESENCE mandatory   }|
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD      CRITICALITY ignore      TYPE    CommonPhysicalChannelType-CTCH-SetupRqstFDD
    PRESENCE    mandatory   },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCH-CTCH-SetupRqstFDD,
    pRACH-parameters                PRACH-CTCH-SetupRqstFDD,
    pCPCHes-parameters              PCPCH-CTCH-SetupRqstFDD,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode   OPTIONAL,
    -- This IE shall be present if the PCH Parameters IE is not present
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    tFCS                                    TFCS,
    secondary-CCPCH-SlotFormat              SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE shall be present if the Secondary CCPCH Slot Format is set to any of the values from 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    powerOffsetInformation                  PowerOffsetInformation-CTCH-SetupRqstFDD,
    sTTD-Indicator                          STTD-Indicator,
    fACH-Parameters                         FACH-ParametersList-CTCH-SetupRqstFDD       OPTIONAL,
    pCH-Parameters                          PCH-Parameters-CTCH-SetupRqstFDD            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MICH-Parameters-CTCH-SetupRqstFDD          CRITICALITY reject  EXTENSION MICH-Parameters-CTCH-SetupRqstFDD     PRESENCE optional }|
    { ID id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD   CRITICALITY reject  EXTENSION FDD-S-CCPCH-FrameOffset               PRESENCE optional },
```

```
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                        PowerOffset,
    pO3-ForPilotBits                        PowerOffset,
    iE-Extensions                           ProtocolExtensionContainer { { PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs} }  OPTIONAL,
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

FACH-ParametersListIEs-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstFDD   CRITICALITY reject    TYPE FACH-ParametersListIE-CTCH-SetupRqstFDD PRESENCE mandatory }
}

FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    maxFACH-Power                       DL-Power,
    iE-Extensions                       ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

--*** Unaffected ASN.1 omitted ***
```

9.3.4 Information Elements Definitions

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

--*** Unaffected ASN.1 omitted ***

-- ========================================
--  F
-- ========================================

FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 511)
-- According to the mapping in [9]. The maximum value is equal to the DL spreading factor -1--

FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfCodes)) OF FDD-DL-CodeInformationItem

FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode                       DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    transmissionGapPatternSequenceCodeInformation       TransmissionGapPatternSequenceCodeInformation                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { FDD-DL-CodeInformationItem-ExtIEs} }     OPTIONAL,
    ...
}

FDD-DL-CodeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-S-CCPCH-FrameOffset ::= ENUMERATED {
    v1, v2, v4, ...
}

FDD-S-CCPCH-Offset ::= INTEGER (0..149)
-- 0: 0 chip, 1: 256 chip, 2: 512 chip, .. ,149: 38144 chip [7] --

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}


--*** Unaffected ASN.1 omitted ***
```

9.3.6 Constant Definitions

```
-- **************************************************************
--
-- Constant definitions
--
-- **************************************************************

--*** Unaffected ASN.1 omitted ***

-- **************************************************************
--
-- IEs
--
-- **************************************************************

--*** Unaffected ASN.1 omitted ***
id-MICH-Parameters-CTCH-ReconfRqstFDD                           ProtocolIE-ID ::= 640
id-MICH-Parameters-CTCH-ReconfRqstTDD                           ProtocolIE-ID ::= 641
id-MICH-Parameters-CTCH-SetupRqstFDD                            ProtocolIE-ID ::= 642
id-MICH-Parameters-CTCH-SetupRqstTDD                            ProtocolIE-ID ::= 643
id-Modification-Period                                          ProtocolIE-ID ::= 644
id-NI-Information-NotifUpdateCmd                                ProtocolIE-ID ::= 645
id-S-CCPCH-InformationListExt-AuditRsp                          ProtocolIE-ID ::= 646
id-S-CCPCH-InformationListExt-ResourceStatusInd                 ProtocolIE-ID ::= 647
id-S-CCPCH-LCR-InformationListExt-AuditRsp                      ProtocolIE-ID ::= 648
id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd             ProtocolIE-ID ::= 649
id-HARQ-Preamble-Mode                                           ProtocolIE-ID ::= 650
id-Initial-DL-DPCH-TimingAdjustment                             ProtocolIE-ID ::= 651
id-Initial-DL-DPCH-TimingAdjustment-Allowed                     ProtocolIE-ID ::= 652
id-DLTransmissionBranchLoadValue                                ProtocolIE-ID ::= 653
id-Power-Local-Cell-Group-choice-CM-Rqst                        ProtocolIE-ID ::= 654
id-Power-Local-Cell-Group-choice-CM-Rsp                         ProtocolIE-ID ::= 655
id-Power-Local-Cell-Group-choice-CM-Rprt                        ProtocolIE-ID ::= 656
id-HSDPA-CellPortion-InformationItem-PSCH-ReconfRqst            ProtocolIE-ID ::= 658
id-HSDPA-CellPortion-InformationList-PSCH-ReconfRqst            ProtocolIE-ID ::= 659
id-HS-DSCHRequiredPowerValue-For-Cell-Portion                   ProtocolIE-ID ::= 660
id-HS-DSCHRequiredPowerValueInformation-For-CellPortion         ProtocolIE-ID ::= 661
id-HS-DSCHProvidedBitRateValueInformation-For-CellPortion       ProtocolIE-ID ::= 662
id-E-AGCH-And-E-RGCH-E-HICH-FDD-Scrambling-Code                 ProtocolIE-ID ::= 663
id-E-AGCH-FDD-Code-Information                                  ProtocolIE-ID ::= 664
id-E-DCH-Capability                                             ProtocolIE-ID ::= 665
id-E-DCH-FDD-DL-Control-Channel-Information                     ProtocolIE-ID ::= 666
id-E-DCH-FDD-Information                                        ProtocolIE-ID ::= 667
id-E-DCH-FDD-Information-Response                               ProtocolIE-ID ::= 668
id-E-DCH-FDD-Information-to-Modify                              ProtocolIE-ID ::= 669
id-E-DCH-MACdFlows-to-Add                                       ProtocolIE-ID ::= 670
id-E-DCH-MACdFlows-to-Delete                                    ProtocolIE-ID ::= 671
id-E-DCH-Resources-Information-AuditRsp                         ProtocolIE-ID ::= 672
id-E-DCH-Resources-Information-ResourceStatusInd                ProtocolIE-ID ::= 673
id-E-DCH-RL-Indication                                          ProtocolIE-ID ::= 674
```

```
id-E-DCH-RL-Set-ID                                  ProtocolIE-ID ::= 675
id-E-DPCH-Information-RL-ReconfPrepFDD              ProtocolIE-ID ::= 676
id-E-DPCH-Information-RL-SetupRqstFDD               ProtocolIE-ID ::= 677
id-E-RGCH-E-HICH-FDD-Code-Information               ProtocolIE-ID ::= 678
id-Serving-E-DCH-RL-ID                              ProtocolIE-ID ::= 679
id-UL-DPDCH-Indicator-For-E-DCH-Operation           ProtocolIE-ID ::= 680
id-FDD-S-CCPCH-FrameOffset-CTCH-SetupRqstFDD        ProtocolIE-ID ::= 681
id-E-DPCH-Information-RL-ReconfRqstFDD              ProtocolIE-ID ::= 682

END
```