**TSG RAN Meeting #21** **RP-030452**
**Frankfurt, Germany, 16 - 19 September 2003**

**Title** **CRs (Rel-5 only) to TS 25.423, TS 25.433 and TS 25.215 (RAN1) on Phase Reference Signalling Support**
**Source** **TSG RAN WG3**
**Agenda Item** **7.4.6**

| RAN3 Tdoc | Spec | curr. Vers. | new Vers. | REL | CR | Rev | Cat | Title | Work item |
|---|---|---|---|---|---|---|---|---|---|
| R3-031177 | 25.423 | 5.6.0 | 5.7.0 | REL-5 | 844 | 1 | F | Phase Reference Signalling Support | TEI5 |
| R3-031178 | 25.433 | 5.5.0 | 5.6.0 | REL-5 | 869 | 1 | F | Phase Reference Signalling Support | TEI5 |
| R1-030810 | 25.215 | 5.4.0 | 5.5.0 | REL-5 | 144 | 1 | F | Beamforming Enhancement related measurements | RANimp-BFE |

**Note: Two RAN3 CRs are linked with a RAN1 CR.**

**3GPP TSG-RAN WG1 Meeting #33**
**New York City, USA, 25-29 August 2003**

***Tdoc R1-030810***

*CR-Form-v7*

# CHANGE REQUEST

⌘ **TS25.215** **CR** **144** ⌘**rev** **1** ⌘ Current version: **5.4.0** ⌘

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

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

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Beamforming Enhancement related measurements |
| ***Source:*** | ⌘ | TSG RAN WG1 |
| ***Work item code:*** | ⌘ | RANimp-BFE |
| ***Date:*** | ⌘ | 22/08/2003 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | Rel-5 |

*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:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *Rel-4* | *(Release 4)* |
| *Rel-5* | *(Release 5)* |
| *Rel-6* | *(Release 6)* |

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | Agreed changes to UTRAN measurements from Rel'6 Work Item on Beamforming Enhancements are introduced into Rel'5 to facilitate the use of beamforming. |
| ***Summary of change:*** | ⌘ | The concept of cell portion is introduced. The UTRAN measurement for SIR is extended to be made also per cell portion to support beamforming functionality. |
| ***Consequences if not approved:*** | ⌘ | This CR complements the signaling defined at RAN WG3 for Rel'5 beamforming . Without the measurements available from L1 beamforming solution is not complete in the specification.<br><br>Impact Analysis:<br><br>The proposed correction impacts a Node B that is implementing beamforming. Node B that does not support beamforming remains unaffected. The change is limited only to the SIR measurement functionality. |

| | | | | | |
|---|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 3.1, 3.2, 5.2.2 | | | |
| | | **Y** | **N** | | |
| ***Other specs*** | ⌘ | **X** | | Other core specifications | ⌘ CR869 TS 25.433 v5.5.0<br>CR844 TS 25.423 v5.6.0 |
| ***affected:*** | | | **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.

# 1 Scope

The present document contains the description and definition of the measurements for FDD done at the UE and network in order to support operation in idle mode and connected mode.

# 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document.*


[1] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[2] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[3] 3GPP TS 25.213: "Spreading and modulation (FDD)".

[4] 3GPP TS 25.214: "Physical layer procedures (FDD)".

[5] 3GPP TS 25.215: "Physical layer - Measurements (FDD)".

[6] 3GPP TS 25.221: "Physical channels and mapping of transport channels onto physical channels (TDD)".

[7] 3GPP TS 25.222: "Multiplexing and channel coding (TDD)".

[8] 3GPP TS 25.223: "Spreading and modulation (TDD)".

[9] 3GPP TS 25.224: "Physical layer procedures (TDD)".

[10] 3GPP TS 25.301: "Radio Interface Protocol Architecture".

[11] 3GPP TS 25.302: "Services provided by the Physical layer".

[12] 3GPP TS 25.303: "UE functions and interlayer procedures in connected mode".

[13] 3GPP TS 25.304: "UE procedures in idle mode".

[14] 3GPP TS 25.331: "RRC Protocol Specification".

[15] 3GPP TR 25.922: "Radio Resource Management Strategies".

[16] 3GPP TR 25.923: "Report on Location Services (LCS)".

[17] 3GPP TR 25.401: "UTRAN Overall Description".

[18] 3GPP TS 25.101: "UE Radio transmission and Reception (FDD)".

[19] 3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception".

[20] 3GPP TS 25.133: " Requirements for Support of Radio Resource Management (FDD)"

[21] 3GPP TS 25.225: " Physical layer – Measurements (TDD)".

# 3 Definitions and Abbreviations

## 3.1 Definitions

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

**cell portion**: A geographical part of a cell for which a Node B measurement can be reported to the RNC. A cell portion is semi-static, and identical for both the UL and the DL. Within a cell, a cell portion is uniquely identified by a cell portion ID.

Note 1: a cell portion is not necessarily analogous to actual beams used for transmission and/or reception of e.g. a DPCH at the Node B.
Note 2: RNC may associate physical channels with cell portions.

## 3.2 Abbreviations

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

| | |
|---|---|
| BER | Bit Error Rate |
| BLER | Block Error Rate |
| Ec/No | Received energy per chip divided by the power density in the band |
| ISCP | Interference Signal Code Power |
| RL | Radio Link |
| RSCP | Received Signal Code Power |
| RSSI | Received Signal Strength Indicator |
| SIR | Signal to Interference Ratio |

## 5.1.10 UE Rx-Tx time difference

| | |
|---|---|
| **Definition** | The difference in time between the UE uplink DPCCH/DPDCH frame transmission and the first detected path (in time), of the downlink DPCH frame from the measured radio link. Type 1 and Type 2 are defined. For Type 1, the reference Rx path shall be the first detected path (in time) amongst the paths (from the measured radio link) used in the demodulation process. For Type 2, the reference Rx path shall be the first detected path (in time) amongst all paths (from the measured radio link) detected by the UE. The reference path used for the measurement may therefore be different for Type 1 and Type 2. The reference point for the UE Rx-Tx time difference shall be the antenna connector of the UE. Measurement shall be made for each cell included in the active set. |
| **Applicable for** | CELL_DCH intra |

## 5.1.11 Observed time difference to GSM cell

| | |
|---|---|
| **Definition** | The Observed time difference to GSM cell is defined as: $T_{RxGSMj}$ - $T_{RxSFNi}$, where:<br>$T_{RxSFNi}$ is the time at the beginning of the P-CCPCH frame with SFN=0 from cell i. Cell i is an intra-frequency cell.<br>$T_{RxGSMj}$ is the time at the beginning of the GSM BCCH 51-multiframe from GSM frequency j received closest in time after the time $T_{RxSFNi}$. If the next GSM multiframe is received exactly at $T_{RxSFNi}$ then $T_{RxGSMj}$ =$T_{RxSFNi}$ (which leads to $T_{RxGSMj}$ - $T_{RxSFNi}$ = 0). The reference point for the Observed time difference to GSM cell shall be the antenna connector of the UE.<br><br>The beginning of the GSM BCCH 51-multiframe is defined as the beginning of the first tail bit of the frequency correction burst in the first TDMA-frame of the GSM BCCH 51-multiframe, i.e. the TDMA-frame following the IDLE-frame.<br>The reported time difference is calculated from the actual measurement in the UE. The actual measurement shall be based on:<br><br>$T_{MeasGSM,j}$: The start of the first tail bit of the most recently received GSM SCH on frequency j<br>$T_{MeasSFN,i}$: The start of the last P-CCPCH frame received from cell i before receiving the GSM SCH on frequency j<br><br>For calculating the reported time difference, the frame lengths are always assumed to be 10 ms for UTRA and (60/13) ms for GSM. |
| **Applicable for** | Idle, URA_PCH inter-RAT, CELL_PCH inter-RAT, CELL_DCH inter-RAT |

## 5.1.12 UE GPS Timing of Cell Frames for UE positioning

| | |
|---|---|
| **Definition** | The timing between cell j and GPS Time Of Week. $T_{UE-GPSj}$ is defined as the time of occurrence of a specified UTRAN event according to GPS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first detected path (in time) of the cell j CPICH, where cell j is a cell chosen by the UE. The reference point for $T_{UE-GPSj}$ shall be the antenna connector of the UE. |
| **Applicable for** | CELL_FACH intra, CELL_DCH intra |

## 5.1.13 UE GPS code phase

| | |
|---|---|
| **Definition** | The whole and fractional phase of the spreading code of the $i^{th}$ GPS satellite signal. The reference point for the GPS code phase shall be the antenna connector of the UE. |
| **Applicable for** | Void (this measurement is not related to UTRAN/GSM signals; its applicability is therefore independent of the UE RRC state) |

## 5.2 UTRAN measurement abilities

The structure of the table defining a UTRAN measurement quantity is shown below.

| **Column field** | Comment |
|---|---|
| **Definition** | Contains the definition of the measurement. |

The term "antenna connector" used in this sub-clause to define the reference point for the UTRAN measurements refers to the "BS antenna connector" test port A and test port B as described in [19]. The term "antenna connector" refers to Rx or Tx antenna connector as described in the respective measurement definitions.

### 5.2.1 Received total wide band power

| | |
|---|---|
| **Definition** | The received wide band power, including noise generated in the receiver, within the bandwidth defined by the receiver pulse shaping filter. The reference point for the measurement shall be the Rx antenna connector. In case of receiver diversity the reported value shall be linear average of the power in the diversity branches. |

### 5.2.2 SIR

| | |
|---|---|
| **Definition** | Signal to Interference Ratio, is defined as: (RSCP/ISCP)×SF. The ~~M~~measurement shall be performed on the DPCCH of a Radio Link Set. In compressed mode the SIR shall not be measured in the transmission gap. The reference point for the SIR measurements shall be the Rx antenna connector. If the radio link set contains more than one radio link, the reported value shall be the linear summation of the SIR from each radio link of the radio link set. If Rx diversity is used in the Node B for a cell, the SIR for a radio link shall be the linear summation of the SIR from each Rx antenna for that radio link. When cell portions are defined in the cell, the SIR measurement shall be possible in each cell portion.<br><br>where:<br><br>RSCP = Received Signal Code Power, unbiased measurement of the received power on one code.<br>ISCP = Interference Signal Code Power, the interference on the received signal.<br>SF=The spreading factor used on the DPCCH. |

### 5.2.3 $SIR_{error}$

| | |
|---|---|
| **Definition** | $SIR_{error}$ = SIR – $SIR_{target\_ave}$, where:<br><br>SIR = the SIR measured by UTRAN, defined in section 5.2, given in dB.<br><br>$SIR_{target\_ave}$ = the $SIR_{target}$ averaged over the same time period as the SIR used in the $SIR_{error}$ calculation. In compressed mode $SIR_{target}$=$SIR_{cm\_target}$ shall be used when calculating $SIR_{target\_ave}$. In compressed mode the $SIR_{target\_ave}$ shall not be calculated over the transmission gap. The averaging of $SIR_{target}$ shall be made in a linear scale and $SIR_{target\_ave}$ shall be given in dB. |

## 5.2.4 Transmitted carrier power

| | |
|---|---|
| **Definition** | Transmitted carrier power, is the ratio between the total transmitted power on one DL carrier from one UTRAN access point, and the maximum transmission power possible to use on that DL carrier at this moment of time. Total transmission power is the mean power [W] on one carrier from one UTRAN access point. Maximum transmission power is the mean power [W] on one carrier from one UTRAN access point when transmitting at the configured maximum power for the cell. Measurement shall be possible on any carrier transmitted from the UTRAN access point. The reference point for the transmitted carrier power measurement shall be the Tx antenna connector. In case of Tx diversity the transmitted carrier power for each branch shall be measured and the maximum of the two values shall be reported to higher layers, i.e. only one value will be reported to higher layers. |

## 5.2.5 Transmitted code power

| | |
|---|---|
| **Definition** | Transmitted code power, is the transmitted power on one channelisation code on one given scrambling code on one given carrier. Measurement shall be possible on the DPCCH-field of any dedicated radio link transmitted from the UTRAN access point and shall reflect the power on the pilot bits of the DPCCH-field. When measuring the transmitted code power in compressed mode all slots shall be included in the measurement, e.g. also the slots in the transmission gap shall be included in the measurement. The reference point for the transmitted code power measurement shall be the Tx antenna connector. In case of Tx diversity the transmitted code power for each branch shall be measured and summed together in [W]. |

## 5.2.6 Transport channel BER

| | |
|---|---|
| **Definition** | The transport channel BER is an estimation of the average bit error rate (BER) of the DPDCH data of a Radio Link Set. The transport channel (TrCH) BER is measured from the data considering only non-punctured bits at the input of the channel decoder in Node B. It shall be possible to report an estimate of the transport channel BER for a TrCH after the end of each TTI of the TrCH. The reported TrCH BER shall be an estimate of the BER during the latest TTI for that TrCH. |

## 5.2.7 Physical channel BER

| | |
|---|---|
| **Definition** | The Physical channel BER is an estimation of the average bit error rate (BER) on the DPCCH of a Radio Link Set. An estimate of the Physical channel BER shall be possible to be reported after the end of each TTI of any of the transferred TrCHs. The reported physical channel BER shall be an estimate of the BER averaged over the latest TTI of the respective TrCH. |

## 5.2.8 Round trip time

| | |
|---|---|
| **Definition** | Round trip time (RTT), is defined as<br>$RTT = T_{RX} - T_{TX}$, where<br>$T_{TX}$ = The time of transmission of the beginning of a downlink DPCH frame to a UE. The reference point for $T_{TX}$ shall be the Tx antenna connector.<br>$T_{RX}$ = The time of reception of the beginning (the first detected path, in time) of the corresponding uplink DPCCH/DPDCH frame from the UE. The reference point for $T_{RX}$ shall be the Rx antenna connector.<br>Measurement shall be possible on DPCH for each RL transmitted from an UTRAN access point and DPDCH/DPCCH for each RL received in the same UTRAN access point. |

## 5.2.9 UTRAN GPS Timing of Cell Frames for UE positioning

| | |
|---|---|
| **Definition** | $T_{UTRAN-GPS}$ is defined as the time of the occurrence of a specified UTRAN event according to GPS Time Of Week. The specified UTRAN event is the beginning of the transmission of a particular frame in the cell. The reference point for $T_{UTRAN-GPS}$ shall be the Tx antenna connector. |

## 5.2.10 PRACH/PCPCH Propagation delay

| | |
|---|---|
| **Definition** | Propagation delay is defined as one-way propagation delay as measured during either PRACH or PCPCH access:<br><br>PRACH :<br><br>Propagation delay = $(T_{RX} – T_{TX} – 2560)/2$, where:<br>$T_{TX}$ = The transmission time of AICH access slot (n-2-AICH transmission timing), where $0 \leq$(n-2-AICH Transmission Timing)$\leq 14$ and AICH_Transmission_Timing can have values 0 or 1. The reference point for $T_{TX}$ shall be the Tx antenna connector.<br>$T_{RX}$ = The time of reception of the beginning (the first detected path, in time) of the PRACH message from the UE at PRACH access slot n. The reference point for $T_{RX}$ shall be the Rx antenna connector.<br><br>PCPCH:<br><br>Propagation delay = $(T_{RX} – T_{TX} – (L_{pc\text{-}preamble} +1)*2560 – (k-1)*38400)/2$, where<br>$T_{TX}$ = The transmission time of CD-ICH at access slot (n-2-$T_{cpch}$), where $0 \leq$(n-2-$T_{cpch}$)$\leq 14$ and $T_{cpch}$ can have values 0 or 1. The reference point for $T_{TX}$ shall be the Tx antenna connector.<br>$T_{RX}$ = The time of reception of the first chip (the first detected path, in time) of the kth frame of the PCPCH message from the UE, where $k \in \{1, 2, \ldots, N\_Max\_frames\}$. The reference point for $T_{RX}$ shall be the Rx antenna connector.<br>N_max_frames is a higher layer parameter and defines the maximum length of the PCPCH message. The PCPCH message begins at uplink access slot (n+$L_{pc\text{-}preamble}$/2),<br>where $0 \leq (n + L_{pc\text{-}preamble}/2) \leq 14$ and where $L_{pc\text{-}preamble}$ can have values 0 or 8. |

## 5.2.11 Acknowledged PRACH preambles

| | |
|---|---|
| **Definition** | The Acknowledged PRACH preambles measurement is defined as the total number of acknowledged PRACH preambles per access frame per PRACH. This is equivalent to the number of positive acquisition indicators transmitted per access frame per AICH. |

## 5.2.12 Detected PCPCH access preambles

| | |
|---|---|
| **Definition** | The detected PCPCH access preambles measurement is defined as the total number of detected access preambles per access frame on the PCPCHs belonging to a CPCH set. |

## 5.2.13 Acknowledged PCPCH access preambles

| | |
|---|---|
| **Definition** | The Acknowledged PCPCH access preambles measurement is defined as the total number of acknowledged PCPCH access preambles per access frame on the PCPCHs belonging to a SF. This is equivalent to the number of positive acquisition indicators transmitted for a SF per access frame per AP-AICH. |

## 5.2.14 SFN-SFN observed time difference

| | |
|---|---|
| **Definition** | The relative timing difference between cell j and cell i, defined as $T_{CPICHRxj}$ - $T_{CPICHRxi}$, where:<br>$T_{CPICHRxj}$ is the time when the LMU receives the beginning of one Primary CPICH frame from cell j and<br>$T_{CPICHRxi}$ is the time when the LMU receives the beginning of the Primary CPICH frame from cell i that is closest in time to the beginning of Primary CPICH frame received from cell j.<br>The reference point for the measurements shall be the Rx antenna connector. |

## 5.2.15 Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission

| | |
|---|---|
| **Definition** | Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission is the ratio between the total transmitted power of all codes not used for HS-PDSCH or HS-SCCH transmission on one DL carrier from one UTRAN access point, and the maximum transmission power possible to use on that DL carrier at this moment of time. Total transmission power of all codes not used for HS-PDSCH or HS-SCCH transmission is the mean power [W] of all codes not used for HS-PDSCH or HS-SCCH transmission on one carrier from one UTRAN access point. Maximum transmission power is the mean power [W] on one carrier from one UTRAN access point when transmitting at the configured maximum power for the cell. The measurement shall be possible on any carrier transmitted from the UTRAN access point. The reference point for the transmitted carrier power measurement of all codes not used for HS-PDSCH or HS-SCCH transmission shall be the Tx antenna connector. In case of Tx diversity the transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission for each branch shall be measured and the maximum of the two values shall be reported to higher layers, i.e. only one value will be reported to higher layers. |

**3GPP TSG-RAN3 Meeting #37**
**Budapest, Hungary, 25th – 29th, August 2003**

***Tdoc ⌘R3-031177***

*CR-Form-v7*

# CHANGE REQUEST

⌘ **25.423** **CR** **844** ⌘ **rev** **1** ⌘ Current version: **5.6.0** ⌘

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

| | | | | | |
|---|---|---|---|---|---|
| ***Title:*** | ⌘ | Phase Reference Signalling Support | | | |
| ***Source:*** | ⌘ | RAN3 | | | |
| ***Work item code:*** | ⌘ | TEI5 | ***Date:*** | ⌘ | 25/08/2003 |
| ***Category:*** | ⌘ | **F** | ***Release:*** | ⌘ | Rel-5 |

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| *R99* | *(Release 1999)* |
| *Rel-4* | *(Release 4)* |
| *Rel-5* | *(Release 5)* |
| *Rel-6* | *(Release 6)* |

***Reason for change:*** ⌘ According to the current understanding in RAN1, the Node B is not provided with knowledge over the Iub of which phase reference a certain UE is using.

This problem can be avoided by introducing phase reference signalling over Iub and Iur. Note that the phase reference is one of

- P-CPICH
- one of possibly several S-CPICHs
- dedicated pilot

as specified in 25.211.

During RAN #20, it was decided that RAN3 specification shall support phase reference siganilling. Thus this CR provides necessary parameters.

Rev.1:

Changes resulting from the discussion in RAN WG3#37, ref. below.

***Summary of change:*** ⌘ - Phase reference signalling is added in Radio Link Setup, Radio Link Addition and Radio Link Reconfiguration procedures.
- ~~-~~RL Parameter Update Procedure is included to indicate to SRNC to change the reference phase.

Rev.1:

- "…channel estimation with DCH…" changed to "…channel estimation for DCH…"

- In 8.3.4.2 “CRNC” changed to “DRNC”
- In 8.3.1.2 and 8.3.2.2 “[FDD - If Primary CPICH shall not be used” changed to “[FDD - If Primary CPICH is not to be used”
- In 8.3.2.2, 9.1.6.1 and 9.3.3, *UE Support Of Dedicated Pilots For Channel Estimation* IE and *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE removed from Radio Link Addition Request.

***Consequences if not approved:*** ⌘ RAN1 has identified the following problems if the Node B does not have knowledge of the phase reference used by a certain UE:

- Node B beam-forming is impossible without knowledge of the phase reference used by each UE.
- Proper operation of HSDPA in Rel-5 requires the suggested signalling.

Impact Analysis:

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

This CR has isolated impact with the previous version of the specification. The change is limited only to the phase reference functionality.

Impact assessment towards the previous release of the specification:

This CR has no impact on previous releases because the functionality is introduced in backward compatible way.

***Clauses affected:*** ⌘ 8.3.1.2, 8.3.2.2, 8.3.4.2, 8.3.7.2, 8.3.21.1, 8.3.21.2, 9.1.3.1, 9.1.4.1, 9.1.5.1, 9.1.7.1, 9.1.8.1, 9.1.11.1, 9.1.12.1, 9.1.16.1, 9.1.58.1, new 9.2.2.x1, new 9.2.2.x2, new 9.2.2.x3, new 9.2.2.x4, new 9.2.2.x5, new 9.2.2.x6, 9.3.3, 9.3.4, 9.3.6

| | | Y | N | | | |
|---|---|---|---|---|---|---|
| ***Other specs affected:*** | ⌘ | X | | Other core specifications | ⌘ | CR869 TS 25.433 v5.5.0<br>CR144 TS 25.215 v5.4.0 |
| | | | 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.

## 8.3.1 Radio Link Setup

### 8.3.1.2 Successful Operation

/* partly omitted */

**Physical Channels Handling:**

**[FDD - Compressed Mode]:**

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

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

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

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

**[FDD - DL Code Information]:**

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

**[FDD – Phase Reference Handling]:**

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

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

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

**General:**

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

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

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Length of TFCI2* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]

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

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

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

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

**Radio Link Handling:**

**Diversity Combination Control:**

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

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

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

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

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

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

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

**[FDD-Transmit Diversity]:**

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

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

**DL Power Control:**

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

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

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

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

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

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

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

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

[FDD - The DRNS shall start any DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code of a RL until UL synchronisation is

achieved on the Uu interface for the concerned RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.15).]

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

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

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

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

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

/* partly omitted */

## 8.3.2 Radio Link Addition

### 8.3.2.2 Successful Operation

/* partly omitted */

**Physical Channels Handling:**

**[FDD-Compressed Mode]:**

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

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]

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

- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

FDD - If the *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]

[FDD - If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

**[FDD-DL Code Information]:**

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

**[TDD - CCTrCH Handling]:**

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

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

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

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

**[FDD – Phase Reference Handling]:**

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

**General:**

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

**Radio Link Handling:**

**Diversity Combination Control:**

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

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

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

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

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

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

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

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

**[FDD-Transmit Diversity]:**

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

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

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

/* partly omitted */

## 8.3.4 Synchronised Radio Link Reconfiguration Preparation

### 8.3.4.2 Successful Operation

/* partly omitted */

**[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:**

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

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

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

**[TDD] DSCH RNTI Addition/Deletion**

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

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

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

**[FDD – Phase Reference Handling]:**

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

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

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

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

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

**General**

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

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

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

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

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

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

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

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

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

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

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

## 8.3.7 Unsynchronised Radio Link Reconfiguration

### 8.3.7.2 Successful Operation

/* partly omitted */

**DL Power Control:**

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

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

**[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:**

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

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

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

**[FDD – Phase Reference Handling]:**

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

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

**[FDD – Phase Reference Handling]:**

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

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

**General:**

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

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

The DRNC shall include the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was

requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1.

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

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

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

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

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

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

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

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

## 8.3.21 Radio Link Parameter Update

### 8.3.21.1 General

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

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

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

### 8.3.21.2 Successful Operation


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

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

**HS-DSCH related Parameter(s) Updating:**

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

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

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

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

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

**[FDD – Phase Reference Handling]:**

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

### 8.3.21.3 Abnormal Conditions

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## 9.1.3 RADIO LINK SETUP REQUEST

### 9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| SRNC-ID | M | | RNC-ID 9.2.1.50 | | YES | reject |
| S-RNTI | M | | 9.2.1.53 | | YES | reject |
| D-RNTI | O | | 9.2.1.24 | | YES | reject |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL DPCH Information** | | *1* | | | YES | reject |
| >UL Scrambling Code | M | | 9.2.2.53 | | – | |
| >Min UL Channelisation Code Length | M | | 9.2.2.25 | | – | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.24 | | – | |
| >Puncture Limit | M | | 9.2.1.46 | For the UL. | – | |
| >TFCS | M | | TFCS for the UL 9.2.1.63 | | – | |
| >UL DPCCH Slot Format | M | | 9.2.2.52 | | – | |
| >Uplink SIR Target | O | | Uplink SIR 9.2.1.69 | | – | |
| >Diversity mode | M | | 9.2.2.8 | | – | |
| >SSDT Cell Identity Length | O | | 9.2.2.41 | | – | |
| >S Field Length | O | | 9.2.2.36 | | – | |
| >DPC Mode | O | | 9.2.2.12A | | YES | reject |
| **DL DPCH Information** | | *1* | | | YES | reject |
| >TFCS | M | | TFCS for the DL. 9.2.1.63 | | – | |
| >DL DPCH Slot Format | M | | 9.2.2.9 | | – | |
| >Number of DL Channelisation Codes | M | | 9.2.2.26A | | – | |
| >TFCI Signalling Mode | M | | 9.2.2.46 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.55 | | – | |
| >Multiplexing Position | M | | 9.2.2.26 | | – | |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO1 | M | | Power Offset 9.2.2.30 | Power offset for the TFCI bits. | – | |
| >>PO2 | M | | Power Offset 9.2.2.30 | Power offset for the TPC bits. | – | |
| >>PO3 | M | | Power Offset 9.2.2.30 | Power offset for the pilot bits. | – | |
| >FDD TPC Downlink Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.21A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.21a | | – | |
| >Split Type | O | | 9.2.2.39a | | YES | reject |
| >Length of TFCI2 | O | | 9.2.2.21C | | YES | reject |
| DCH Information | M | | DCH FDD Information 9.2.2.4A | | YES | reject |
| DSCH Information | O | | DSCH FDD Information | | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | 9.2.2.13A | | | |
| **RL Information** | | *1…<maxnoofRLs>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.49 | | – | |
| >C-ID | M | | 9.2.1.6 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Frame Offset | M | | 9.2.1.30 | | – | |
| >Chip Offset | M | | 9.2.2.1 | | – | |
| >Propagation Delay | O | | 9.2.2.33 | | – | |
| >Diversity Control Field | C – NotFirstRL | | 9.2.1.20 | | – | |
| >Initial DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Primary CPICH Ec/No | O | | 9.2.2.32 | | – | |
| >SSDT Cell Identity | O | | 9.2.2.40 | | – | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | – | |
| >SSDT Cell Identity for EDSCHPC | C-EDSCHPC | | 9.2.2.40A | | YES | ignore |
| >Enhanced Primary CPICH Ec/No | O | | 9.2.2.13I | | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.19Aa | | YES | reject |
| >Qth Parameter | O | | 9.2.2.34a | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.47A | | YES | reject |
| Active Pattern Sequence Information | O | | 9.2.2.A | | YES | reject |
| Permanent NAS UE Identity | O | | 9.2.1.73 | | YES | ignore |
| DL Power Balancing Information | O | | 9.2.2.10A | | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |
| HS-PDSCH RL ID | C – InfoHSDSCH | | RL ID 9.2.1.49 | | YES | reject |
| UE Support Of Dedicated Pilots For Channel Estimation | O | | 9.2.2.x1 | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | O | | 9.2.2.x2 | | YES | ignore |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if *Min UL Channelisation Code length* IE equals to 4 |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| NotFirstRL | The IE shall be present if the RL is not the first one in the *RL Information* IE. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not equal to "none". |
| EDSCHPC | This IE shall be present if *Enhanced DSCH PC* IE is present in the *DSCH Information* IE. |
| InfoHSDSCH | This IE shall be present if *HS-DSCH Information* IE is present. |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |

## 9.1.4 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 |
| *>>Non Combining or First RL* | | | | | – | |
| >>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >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 Response | O | | DSCH FDD Information | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| | | | 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 |
| >HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | 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.x3 | | 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 | reject |

| Range bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE. |

## 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 | | – | |
| **>>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 |
| >>>>*Non Combining or First RL* | | | | | – | |
| >>>>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >>>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 CPICH | M | | 9.2.1.44 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Power | | | | | | |
| >>>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 |
| >>>HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | 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.x3 | | YES | ignore |
| >>DSCH-RNTI | O | | 9.2.1.26Ba | | YES | ignore |
| >>HS-DSCH-RNTI | O | | 9.2.1.30P | | YES | reject |
| 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. |

## 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 |
| >>*Non Combining* | | | | | – | |
| >>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >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 |
| >HCS Prio | O | | 9.2.1.30N | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.x3 | | YES | ignore |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *MaxnoofRLs* | Maximum number of radio links for one UE. |

## 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 | | – | |
| **>>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 |
| *>>>>Non Combining* | | | | | – | |
| >>>>>DCH Information Response | M | | 9.2.1.16A | | – | |
| >>>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 | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| >>>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.x3 | | YES | ignore |
| Criticality Diagnostics | O | | 9.2.1.13 | | YES | ignore |

| Range bound | Explanation |
|---|---|
| *MaxnoofRLs* | Maximum number of radio links for one UE. |

## 9.1.11 RADIO LINK RECONFIGURATION PREPARE

### 9.1.11.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >UL Scrambling Code | O | | 9.2.2.53 | | – | |
| >UL SIR Target | O | | Uplink SIR 9.2.1.69 | | – | |
| >Min UL Channelisation Code Length | O | | 9.2.2.25 | | – | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.24 | | – | |
| >Puncture Limit | O | | 9.2.1.46 | For the UL. | – | |
| >TFCS | O | | 9.2.1.63 | TFCS for the UL. | – | |
| >UL DPCCH Slot Format | O | | 9.2.2.52 | | – | |
| >Diversity Mode | O | | 9.2.2.8 | | – | |
| >SSDT Cell Identity Length | O | | 9.2.2.41 | | – | |
| >S-Field Length | O | | 9.2.2.36 | | – | |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.63 | TFCS for the DL. | – | |
| >DL DPCH Slot Format | O | | 9.2.2.9 | | – | |
| >Number of DL Channelisation Codes | O | | 9.2.2.26A | | – | |
| >TFCI Signalling Mode | O | | 9.2.2.46 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.55 | | – | |
| >Multiplexing Position | O | | 9.2.2.26 | | – | |
| >Limited Power Increase | O | | 9.2.2.21A | | – | |
| >Split Type | O | | 9.2.2.39a | | YES | reject |
| >Length of TFCI2 | O | | 9.2.2.21C | | YES | reject |
| DCHs To Modify | O | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | O | | DCH FDD Information 9.2.2.4A | | YES | reject |
| **DCHs to Delete** | | *0..<maxnoof DCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | – | |
| **DSCHs To Modify** | | 0..1 | | | YES | reject |
| **>DSCH Info** | | *0..<maxnoof DSCHs>* | | | – | |
| >>DSCH ID | M | | 9.2.1.26A | | – | |
| >>TrCH Source Statistics Descriptor | O | | 9.2.1.65 | | – | |
| >>Transport Format Set | O | | 9.2.1.64 | For DSCH | – | |
| >>Allocation/ Retention Priority | O | | 9.2.1.1 | | – | |
| >>Scheduling | O | | 9.2.1.51A | | – | |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Priority Indicator | | | | | | |
| >>BLER | O | | 9.2.1.4 | | – | |
| >>Transport Bearer Request Indicator | M | | 9.2.1.61 | | – | |
| >>Traffic Class | O | | 9.2.1.58A | | YES | ignore |
| >>Binding ID | O | | 9.2.1.3 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >>Transport Layer Address | O | | 9.2.1.62 | Shall be ignored if bearer establishment with ALCAP. | YES | ignore |
| >PDSCH RL ID | O | | RL ID 9.2.1.49 | | – | |
| >TFCS | O | | 9.2.1.63 | For DSCH | – | |
| >Enhanced DSCH PC Indicator | O | | 9.2.2.13F | | YES | ignore |
| >Enhanced DSCH PC | C-EDSCHPCOn | | 9.2.2.13D | | YES | ignore |
| DSCHs To Add | O | | DSCH FDD Information 9.2.2.13A | | YES | reject |
| **DSCHs to Delete** | | 0..1 | | | YES | reject |
| **>DSCH Info** | | *1..<maxnoofDSCHs>* | | | – | |
| >>DSCH ID | M | | 9.2.1.26A | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | reject |
| >RL ID | M | | 9.2.1.49 | | – | |
| >SSDT Indication | O | | 9.2.2.42 | | – | |
| >SSDT Cell Identity | C - SSDTIndON | | 9.2.2.40 | | – | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.48 | | – | |
| >SSDT Cell Identity for EDSCHPC | C-EDSCHPC | | 9.2.2.40A | | YES | ignore |
| >DL Reference Power | O | | DL Power 9.2.1.21A | Power on DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.49A | | YES | ignore |
| >DL DPCH Timing Adjustment | O | | 9.2.2.9A | Required RL Timing Adjustment | YES | reject |
| >Qth Parameter | O | | 9.2.2.34a | | YES | ignore |
| >Phase Reference Update Indicator | O | | 9.2.2.x6 | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.47A | | YES | reject |
| HS-DSCH Information To Modify | O | | 9.2.1.30Q | | YES | reject |
| HS-DSCH Information To Add | O | | HS-DSCH FDD Information 9.2.2.19a | | YES | reject |

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| **HS-DSCH Information To Delete** | | *0..<maxnoof MACdFlows >* | | | GLOBAL | reject |
| >HS-DSCH MAC-d Flow ID | M | | 9.2.1.30O | | – | |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.49 | | YES | reject |
| UE Support Of Dedicated Pilots For Channel Estimation | O | | 9.2.2.x1 | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | O | | 9.2.2.x2 | | YES | ignore |

| Condition | Explanation |
|---|---|
| SSDTIndON | The IE shall be present if the *SSDT Indication* IE is set to ”SSDT Active in the UE”. |
| CodeLen | The IE shall be present only if the *Min UL Channelisation Code length* IE equals to 4. |
| SlotFormat | The IE shall only be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE is present in the *UL DPCH Information* IE and is not equal to “none”. |
| EDSCHPCOn | The IE shall be present if the *Enhanced DSCH PC Indicator* IE is set to "Enhanced DSCH PC Active in the UE". |
| EDSCHPC | The IE shall be present if *Enhanced DSCH PC* IE is present in either the *DSCHs To Modify* IE or the *DSCHs To Add* IE. |

| Range bound | Explanation |
|---|---|
| *MaxnoofDCHs* | Maximum number of DCHs for a UE. |
| *MaxnoofDSCHs* | Maximum number of DSCHs for one UE. |
| *MaxnoofRLs* | Maximum number of RLs for a UE. |
| *MaxnoofMACdFlows* | Maximum number of HS-DSCH MAC-d flows |

## 9.1.12 RADIO LINK RECONFIGURATION READY

### 9.1.12.1 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** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >Maximum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Minimum Uplink SIR | O | | Uplink SIR 9.2.1.69 | | – | |
| >Maximum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Minimum DL TX Power | O | | DL Power 9.2.1.21A | | – | |
| >Secondary CCPCH Info | O | | 9.2.2.37B | | – | |
| >DL Code Information | O | | FDD DL Code Information 9.2.2.14A | | YES | ignore |
| >DCH Information Response | O | | 9.2.1.16A | | YES | ignore |
| >DSCHs to be Added or Modified | O | | DSCH FDD Information Response 9.2.2.13B | | YES | ignore |
| >DL Power Balancing Updated Indicator | O | | 9.2.2.10D | | YES | ignore |
| >HS-DSCH Information Response | O | | HS-DSCH FDD Information Response 9.2.2.19b | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.x3 | | YES | ignore |
| >Secondary CPICH Information Change | O | | 9.2.2.x5 | | 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 | reject |
| MAC-hs Reset Indicator | O | | 9.2.1.34B | | YES | reject |

| Range bound | Explanation |
|---|---|
| *MaxnoofRLs* | Maximum number of RLs for a UE. |

## 9.1.16 RADIO LINK RECONFIGURATION REQUEST

### 9.1.16.1 FDD Message

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| Allowed Queuing Time | O | | 9.2.1.2 | | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.63 | TFCS for the UL. | – | |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.63 | TFCS for the DL. | – | |
| >TFCI Signalling Mode | O | | 9.2.2.46 | | – | |
| >Limited Power Increase | O | | 9.2.2.21A | | – | |
| DCHs To Modify | O | | FDD DCHs To Modify 9.2.2.13C | | YES | reject |
| DCHs To Add | O | | DCH FDD Information 9.2.2.4A | | YES | reject |
| **DCHs to Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.16 | | – | |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.47A | | YES | reject |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | ignore |
| >RL ID | M | | 9.2.1.49 | | – | |
| >RL Specific DCH Information | O | | 9.2.1.49A | | – | |
| DL Reference Power Information | O | | 9.2.2.10C | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation | O | | 9.2.2.x1 | | YES | ignore |
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | O | | 9.2.2.x2 | | YES | ignore |

## 9.1.58 RADIO LINK PARAMETER UPDATE INDICATION

### 9.1.58.1 FDD Message

| IE/Group name | Presence | Range | IE Type and Reference | Semantic Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message type | M | | 9.2.1.40 | | YES | reject |
| Transaction ID | M | | 9.2.1.59 | | – | |
| HS-DSCH FDD Update Information | O | | 9.2.2.19c | | YES | reject |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | reject |
| >RL Id | M | | 9.2.1.49 | | – | |
| >Phase Reference Update Indicator | O | | 9.2.2.x6 | | – | |

### 9.2.2.x6 Phase Reference Update Indicator

The *Phase Reference Update Indicator* IE indicates that the phase reference for the radio link needs to be changed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Phase Reference Update indicator | | | ENUMERATED (Phase Reference needs to be changed) | |

### 9.2.2.x3 Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Usage For Channel Estimation | | | ENUMERATED (Primary CPICH may be used, Primary CPICH shall not be used) | |

### 9.2.2.x4 Secondary CPICH Information

The *Secondary CPICH Information* IE provides the information on the Secondary CPICH when it can be used for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| DL Scrambling Code | | | 9.2.2.11 | |
| FDD DL Channelisation Code Number | | | 9.2.2.14 | |

### 9.2.2.x5 Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Secondary CPICH Information Change* | | | | |
| *>New Secondary CPICH* | | | | |
| >>Secondary CPICH Information | M | | 9.2.2.x4 | |
| *>Secondary CPICH Shall Not Be Used* | | | NULL | |

### 9.2.2.x1 UE Support Of Dedicated Pilots For Channel Estimation

The *UE Support Of Dedicated Pilots For Channel Estimation* IE indicates whether the UE supports dedicated pilots for channel estimation or not for DCH or DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE Support Of Dedicated Pilots For Channel Estimation | | | ENUMERATED (Dedicated pilots for channel estimation supported) | |

### 9.2.2.x2 UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

The *UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH* IE indicates whether the UE supports dedicated pilots for channel estimation or not for HS-DSCH.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH | | | ENUMERATED (Dedicated pilots for channel estimation supported) | |

## 9.3.3 PDU Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
    Active-Pattern-Sequence-Information,
    AllocationRetentionPriority,
    AllowedQueuingTime,
    Allowed-Rate-Information,
    AlphaValue,
    AntennaColocationIndicator,
    BLER,
    SCTD-Indicator,
    BindingID,
    C-ID,
    C-RNTI,
    CCTrCH-ID,
    CFN,
    ClosedLoopMode1-SupportIndicator,
    ClosedLoopMode2-SupportIndicator,
    Closedlooptimingadjustmentmode,
    CN-CS-DomainIdentifier,
    CN-PS-DomainIdentifier,
    CNDomainType,
    Cause,
    CellCapabilityContainer-FDD,
    CellCapabilityContainer-TDD,
    CellCapabilityContainer-TDD-LCR,
    CellParameterID,
    ChipOffset,
    CommonMeasurementAccuracy,
```

```
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonMeasurementValueInformation,
    CommonTransportChannelResourcesInitialisationNotRequired,
    CongestionCause,
    CoverageIndicator,
    CriticalityDiagnostics,
    D-RNTI,
    D-RNTI-ReleaseIndication,
    DCH-FDD-Information,
    DCH-ID,
    DCH-InformationResponse,
    DCH-TDD-Information,
    DL-DPCH-SlotFormat,
    DL-TimeslotISCP,
    DL-Power,
    DL-PowerBalancing-Information,
    DL-PowerBalancing-ActivationIndicator,
    DL-PowerBalancing-UpdatedIndicator,
    DL-ReferencePowerInformation,
    DL-ScramblingCode,
    DL-Timeslot-Information,
    DL-TimeslotLCR-Information,
    DL-TimeSlot-ISCP-Info,
    DL-TimeSlot-ISCP-LCR-Information,
    DPC-Mode,
    DPC-Mode-Change-SupportIndicator,
    DPCH-ID,
    DL-DPCH-TimingAdjustment,
    DRACControl,
    DRXCycleLengthCoefficient,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DedicatedMeasurementValueInformation,
    DelayedActivation,
    DelayedActivationUpdate,
    DiversityControlField,
    DiversityMode,
    DSCH-FDD-Information,
    DSCH-FDD-InformationResponse,
    DSCH-FlowControlInformation,
    DSCH-FlowControlItem,
    DSCH-TDD-Information,
    DSCH-ID,
    DSCH-RNTI,
    SchedulingPriorityIndicator,
    EnhancedDSCHPC,
    EnhancedDSCHPCCounter,
    EnhancedDSCHPCIndicator,
    EnhancedDSCHPCWnd,
    EnhancedDSCHPowerOffset,
```

```
    Enhanced-PrimaryCPICH-EcNo,
    FACH-FlowControlInformation,
    FDD-DCHs-to-Modify,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FrameHandlingPriority,
    FrameOffset,
    GA-AccessPointPosition,
    GA-Cell,
    GA-CellAdditionalShapes,
    HCS-Prio,
    HSDSCH-FDD-Information,
    HSDSCH-FDD-Information-Response,
    HSDSCH-FDD-Update-Information,
    HSDSCH-TDD-Update-Information,
    HSDSCH-Information-to-Modify,
    HSDSCH-MACdFlow-ID,
    HSDSCH-RNTI,
    HSDSCH-TDD-Information,
    HSDSCH-TDD-Information-Response,
    HS-SICH-ID,
    IMSI,
    InformationExchangeID,
    InformationReportCharacteristics,
    InformationType,
    InnerLoopDLPCStatus,
    L3-Information,
    SplitType,
    LengthOfTFCI2,
    LimitedPowerIncrease,
    MaximumAllowedULTxPower,
    MaxNrDLPhysicalchannels,
    MaxNrDLPhysicalchannelsTS,
    MaxNrOfUL-DPCHs,
    MaxNrTimeslots,
    MaxNrULPhysicalchannels,
    MeasurementFilterCoefficient,
    MeasurementID,
    MidambleAllocationMode,
    MidambleShiftAndBurstType,
    MidambleShiftLCR,
    MinimumSpreadingFactor,
    MinUL-ChannelisationCodeLength,
    MultiplexingPosition,
    NeighbouringFDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation,
    Neighbouring-GSM-CellInformation,
```

```
    Neighbouring-UMTS-CellInformation,
    NeighbouringTDDCellMeasurementInformationLCR,
    NrOfDLchannelisationcodes,
    PagingCause,
    PagingRecordType,
    PartialReportingIndicator,
    PDSCHCodeMapping,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PC-Preamble,
    Permanent-NAS-UE-Identity,
    Phase-Reference-Update-Indicator,
    PowerAdjustmentType,
    PowerOffset,
    PrimaryCCPCH-RSCP,
    PrimaryCPICH-EcNo,
    PrimaryCPICH-Power,
    Primary-CPICH-Usage-For-Channel-Estimation,
    PrimaryScramblingCode,
    PropagationDelay,
    PunctureLimit,
    QE-Selector,
    Qth-Parameter,
    RANAP-RelocationInformation,
    RB-Info,
    RL-ID,
    RL-Set-ID,
    RNC-ID,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    Received-total-wide-band-power,
    RequestedDataValue,
    RequestedDataValueInformation,
    RL-Specific-DCH-Info,
    RxTimingDeviationForTA,
    S-FieldLength,
    S-RNTI,
    S-RNTI-Group,
    SCH-TimeSlot,
    SAI,
    SFN,
    Secondary-CCPCH-Info,
    Secondary-CCPCH-Info-TDD,
    Secondary-CPICH-Information-Change,
    Secondary-LCR-CCPCH-Info-TDD,
    SNA-Information,
    SpecialBurstScheduling,
    SSDT-CellID,
    SSDT-CellID-Length,
    SSDT-Indication,
```

```
    SSDT-SupportIndicator,
    STTD-Indicator,
    STTD-SupportIndicator,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
    MaxAdjustmentStep,
    SecondaryCCPCH-SlotFormat,
    SRB-Delay,
    Support-8PSK,
    SyncCase,
    SynchronisationConfiguration,
    TDD-ChannelisationCode,
    TDD-DCHs-to-Modify,
    TDD-DL-Code-Information,
    TDD-DPCHOffset,
    TDD-PhysicalChannelOffset,
    TDD-TPC-DownlinkStepSize,
    TDD-ChannelisationCodeLCR,
    TDD-DL-Code-LCR-Information,
    TDD-UL-Code-Information,
    TDD-UL-Code-LCR-Information,
    TFCI-Coding,
    TFCI-PC-SupportIndicator,
    TFCI-Presence,
    TFCI-SignallingMode,
    TimeSlot,
    TimeSlotLCR,
    TimingAdvanceApplied,
    ToAWE,
    ToAWS,
    TrafficClass,
    TransmitDiversityIndicator,
    TransportBearerID,
    TransportBearerRequestIndicator,
    TFCS,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportFormatManagement,
    TransportFormatSet,
    TransportLayerAddress,
    TrCH-SrcStatisticsDescr,
    TSTD-Indicator,
    TSTD-Support-Indicator,
    UARFCN,
    UC-ID,
    UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
    UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
    UL-DPCCH-SlotFormat,
    UL-SIR,
    UL-FP-Mode,
    UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
```

```
    UL-Timeslot-Information,
    UL-TimeslotLCR-Information,
    UL-TimeSlot-ISCP-Info,
    UL-TimeSlot-ISCP-LCR-Info,
    URA-ID,
    URA-Information,
    USCH-ID,
    USCH-Information,
    UL-Synchronisation-Parameters-LCR,
    TDD-DL-DPCH-TimeSlotFormat-LCR,
    TDD-UL-DPCH-TimeSlotFormat-LCR,
    MAChs-ResetIndicator,
    UL-TimingAdvanceCtrl-LCR,
    TDD-TPC-UplinkStepSize-LCR
FROM RNSAP-IEs

    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-ContainerList{},
    ProtocolIE-ContainerPair{},
    ProtocolIE-ContainerPairList{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers

    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfCCTrCHs,
    maxNrOfDCHs,
    maxNrOfTS,
    maxNrOfDPCHs,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLSets-1,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfULTs,
    maxNrOfDLTs,
    maxResetContext,
    maxResetContextGroup,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR,
    maxNrOfDLTsLCR,
    maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
```

```
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    maxNrOfHSSICHs,

    id-Active-Pattern-Sequence-Information,
    id-AdjustmentRatio,
    id-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-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,
    id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
    id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
    id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-FDD-DL-CodeInformation,
    id-DL-DPCH-Information-RL-ReconfPrepFDD,
    id-DL-DPCH-Information-RL-SetupRqstFDD,
    id-DL-DPCH-Information-RL-ReconfRqstFDD,
    id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
    id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
    id-DL-DPCH-InformationItem-RL-SetupRspTDD,
    id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
    id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
    id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
    id-DL-DPCH-TimingAdjustment,
    id-DL-Physical-Channel-Information-RL-SetupRqstTDD,
    id-DL-PowerBalancing-Information,
    id-DL-PowerBalancing-ActivationIndicator,
    id-DL-PowerBalancing-UpdatedIndicator,
    id-DL-ReferencePowerInformation,
    id-DLReferencePower,
    id-DLReferencePowerList-DL-PC-Rqst,
    id-DL-ReferencePowerInformation-DL-PC-Rqst,
    id-DRXCycleLengthCoefficient,
    id-DedicatedMeasurementObjectType-DM-Fail,
    id-DedicatedMeasurementObjectType-DM-Fail-Ind,
    id-DedicatedMeasurementObjectType-DM-Rprt,
    id-DedicatedMeasurementObjectType-DM-Rqst,
    id-DedicatedMeasurementObjectType-DM-Rsp,
    id-DedicatedMeasurementType,
    id-DelayedActivation,
    id-DelayedActivationList-RL-ActivationCmdFDD,
    id-DelayedActivationList-RL-ActivationCmdTDD,
    id-DelayedActivationInformation-RL-ActivationCmdFDD,
    id-DelayedActivationInformation-RL-ActivationCmdTDD,
    id-DPC-Mode,
    id-DPC-Mode-Change-SupportIndicator,
```

```
    id-DSCHs-to-Add-FDD,
    id-DSCHs-to-Add-TDD,
    id-DSCH-DeleteList-RL-ReconfPrepTDD,
    id-DSCH-Delete-RL-ReconfPrepFDD,
    id-DSCH-FDD-Information,
    id-DSCH-InformationListIE-RL-AdditionRspTDD,
    id-DSCH-InformationListIEs-RL-SetupRspTDD,
    id-DSCH-TDD-Information,
    id-DSCH-FDD-InformationResponse,
    id-DSCH-ModifyList-RL-ReconfPrepTDD,
    id-DSCH-Modify-RL-ReconfPrepFDD,
    id-DSCH-RNTI,
    id-DSCHsToBeAddedOrModified-FDD,
    id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
    id-EnhancedDSCHPC,
    id-EnhancedDSCHPCIndicator,
    id-Enhanced-PrimaryCPICH-EcNo,
    id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
    id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
    id-GA-Cell,
    id-GA-CellAdditionalShapes,
    id-HCS-Prio,
    id-HSDSCH-FDD-Information,
    id-HSDSCH-FDD-Information-Response,
    id-HSDSCH-FDD-Information-to-Add,
    id-HSDSCH-FDD-Information-to-Delete,
    id-HSDSCH-FDD-Update-Information,
    id-HSDSCH-TDD-Update-Information,
    id-HSDSCH-Information-to-Modify,
    id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd,
    id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
    id-HSDSCH-RNTI,
    id-HSDSCH-TDD-Information,
    id-HSDSCH-TDD-Information-Response,
    id-HSDSCH-TDD-Information-Response-LCR,
    id-HSDSCH-TDD-Information-to-Add,
    id-HSDSCH-TDD-Information-to-Delete,
    id-HSPDSCH-RL-ID,
    id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
    id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
    id-HSSICH-Info-DM-Rprt,
    id-HSSICH-Info-DM-Rqst,
    id-HSSICH-Info-DM-Rsp,
    id-IMSI,
    id-InformationExchangeID,
    id-InformationExchangeObjectType-InfEx-Rprt,
    id-InformationExchangeObjectType-InfEx-Rqst,
    id-InformationExchangeObjectType-InfEx-Rsp,
    id-InformationReportCharacteristics,
    id-InformationType,
    id-InnerLoopDLPCStatus,
```

```
    id-SplitType,
    id-LengthOfTFCI2,
    id-L3-Information,
    id-AdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-PagingArea-PagingRqst,
    id-PartialReportingIndicator,
    id-PDSCH-RL-ID,
    id-Permanent-NAS-UE-Identity,
    id-Phase-Reference-Update-Indicator,
    id-FACH-FlowControlInformation,
    id-PowerAdjustmentType,
    id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
    id-Primary-CPICH-Usage-For-Channel-Estimation,
    id-PropagationDelay,
    id-Qth-Parameter,
    id-RANAP-RelocationInformation,
    id-ResetIndicator,
    id-RL-Information-PhyChReconfRqstFDD,
    id-RL-Information-PhyChReconfRqstTDD,
    id-RL-Information-RL-AdditionRqstFDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-DeletionRqst,
    id-RL-Information-RL-FailureInd,
    id-RL-Information-RL-ReconfPrepFDD,
    id-RL-Information-RL-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-ReconfigurationReadyTDD-RL-Information,
    id-RL-ReconfigurationRequestFDD-RL-InformationList,
    id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
    id-RL-ReconfigurationRequestTDD-RL-Information,
    id-RL-Specific-DCH-Info,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rqst,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-Information-RL-FailureInd,
    id-RL-Set-Information-RL-RestoreInd,
    id-RL-Set-Successful-InformationItem-DM-Fail,
    id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
    id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
    id-RL-Successful-InformationItem-DM-Fail,
    id-RL-Unsuccessful-InformationItem-DM-Fail,
    id-RL-Unsuccessful-InformationItem-DM-Fail-Ind,
    id-ReportCharacteristics,
    id-Reporting-Object-RL-FailureInd,
    id-Reporing-Object-RL-RestoreInd,
    id-RNC-ID,
    id-RxTimingDeviationForTA,
    id-S-RNTI,
    id-SAI,
    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-TransportBearerID,
    id-TransportBearerRequestIndicator,
    id-TransportLayerAddress,
    id-UC-ID,
    id-ContextInfoItem-Reset,
    id-ContextGroupInfoItem-Reset,
    id-Transmission-Gap-Pattern-Sequence-Information,
    id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation,
    id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH,
```

```
    id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD,
    id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD,
    id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
    id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
    id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
    id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
    id-UL-DPCH-Information-RL-ReconfPrepFDD,
    id-UL-DPCH-Information-RL-ReconfRqstFDD,
    id-UL-DPCH-Information-RL-SetupRqstFDD,
    id-UL-DPCH-InformationItem-PhyChReconfRqstTDD,
    id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
    id-UL-DPCH-InformationItem-RL-SetupRspTDD,
    id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
    id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
    id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
    id-UL-Physical-Channel-Information-RL-SetupRqstTDD,
    id-UL-SIRTarget,
    id-URA-Information,
    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
    id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,
    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
    id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
    id-USCHs-to-Add,
    id-USCH-DeleteList-RL-ReconfPrepTDD,
    id-USCH-InformationListIE-RL-AdditionRspTDD,
    id-USCH-InformationListIEs-RL-SetupRspTDD,
    id-USCH-Information,
    id-USCH-ModifyList-RL-ReconfPrepTDD,
    id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
    id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD,
    id-RL-LCR-InformationResponse-RL-SetupRspTDD,
    id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
    id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
    id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
    id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
    id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
    id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
    id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD,
    id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
    id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
    id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
```

```
    id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
    id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
    id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
    id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
    id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
    id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
    id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
    id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
    id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
    id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD,
    id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD,
    id-TSTD-Support-Indicator-RL-SetupRqstTDD,
    id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
    id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
    id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
    id-neighbouringTDDCellMeasurementInformationLCR,
    id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
    id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD,
    id-TrafficClass,
    id-UL-Synchronisation-Parameters-LCR,
    id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
    id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
    id-MAChs-ResetIndicator,
    id-UL-TimingAdvanceCtrl-LCR,
    id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD,
    id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD,
    id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD,
    id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD,
    id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD,
    id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD,
    id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
    id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
    id-DL-CCTrCH-InformationList-RL-ReconfRspTDD,
    id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD

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 mandatory   } |
    { ID id-DCH-FDD-Information     CRITICALITY reject  TYPE DCH-FDD-Information        PRESENCE mandatory} |
    { ID id-DSCH-FDD-Information    CRITICALITY reject  TYPE DSCH-FDD-Information           PRESENCE optional   } |
    { ID id-RL-Information-RL-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  },
    ...
}

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 },
    ...
}

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 }|
    { 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},
    ...
}

    /* partly omitted */

-- **************************************************************
--
-- 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,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator           SSDT-SupportIndicator,
    maxUL-SIR                       UL-SIR,
    minUL-SIR                       UL-SIR,
    closedlooptimingadjustmentmode  Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower         MaximumAllowedULTxPower,
    maximumDLTxPower                DL-Power,
    minimumDLTxPower                DL-Power,
    primaryScramblingCode           PrimaryScramblingCode   OPTIONAL,
    uL-UARFCN                       UARFCN                  OPTIONAL,
    dL-UARFCN                       UARFCN                  OPTIONAL,
    primaryCPICH-Power              PrimaryCPICH-Power,
    dSCHInformationResponse         DSCH-InformationResponse-RL-SetupRspFDD OPTIONAL,
    neighbouring-UMTS-CellInformation   Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation    Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble                     PC-Preamble,
    sRB-Delay                       SRB-Delay,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes         CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator   CRITICALITY ignore      EXTENSION       DL-PowerBalancing-ActivationIndicator    PRESENCE
optional}|
    { ID id-HSDSCH-FDD-Information-Response         CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response    PRESENCE optional}|
    { ID id-TFCI-PC-SupportIndicator        CRITICALITY ignore  EXTENSION   TFCI-PC-SupportIndicator    PRESENCE optional }|
    { ID id-HCS-Prio            CRITICALITY ignore  EXTENSION   HCS-Prio        PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-For-Channel-Estimation     PRESENCE
optional },
    ...
}

DiversityIndication-RL-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 },
    ...
}

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

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

DSCH-InformationResponseIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { 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 reject      EXTENSION HSDSCH-RNTI                   PRESENCE optional },
    ...
}

    /* partly omitted */

-- **************************************************************
--
-- 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 reject      EXTENSION HSDSCH-RNTI               PRESENCE optional },
    ...
}

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

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

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

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

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,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    maxUL-SIR                               UL-SIR,
    minUL-SIR                               UL-SIR,
    closedlooptimingadjustmentmode          Closedlooptimingadjustmentmode  OPTIONAL,
    maximumAllowedULTxPower                 MaximumAllowedULTxPower,
    maximumDLTxPower                        DL-Power,
    minimumDLTxPower                        DL-Power,
    primaryCPICH-Power                      PrimaryCPICH-Power,
    primaryScramblingCode                   PrimaryScramblingCode   OPTIONAL,
    uL-UARFCN                                       UARFCN      OPTIONAL,
    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-HSDSCH-FDD-Information-Response         CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response    PRESENCE optional}|
```

```
    { ID id-TFCI-PC-SupportIndicator        CRITICALITY ignore  EXTENSION   TFCI-PC-SupportIndicator    PRESENCE optional }|
    { ID id-HCS-Prio            CRITICALITY ignore  EXTENSION   HCS-Prio        PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-For-Channel-Estimation     PRESENCE
optional },
    ...
}

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

Combining-RL-SetupFailureFDD ::= SEQUENCE {
    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 },
    ...
}

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

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

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

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

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

    /* partly omitted */


-- **************************************************************
--
-- 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,
    -- 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,
    pC-Preamble                         PC-Preamble,
    sRB-Delay                           SRB-Delay,
    primaryCPICH-Power                  PrimaryCPICH-Power,
    iE-Extensions                       ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-GA-CellAdditionalShapes         CRITICALITY ignore  EXTENSION   GA-CellAdditionalShapes     PRESENCE optional }|
    { ID id-DL-PowerBalancing-ActivationIndicator   CRITICALITY ignore      EXTENSION       DL-PowerBalancing-ActivationIndicator    PRESENCE
optional}|
    { ID id-TFCI-PC-SupportIndicator        CRITICALITY ignore  EXTENSION   TFCI-PC-SupportIndicator    PRESENCE optional }|
    { ID id-HCS-Prio            CRITICALITY ignore  EXTENSION   HCS-Prio        PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-For-Channel-Estimation     PRESENCE
optional },
    ...
}

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

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

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                       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 },
    ...
}

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

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

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

    /* partly omitted */

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

```
-- 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 ::= {
    ...
}

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 },
    ...
}

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 },
    ...
}

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

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

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

    /* partly omitted */

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
```

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

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

RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfPrepFDD      PRESENCE optional } |
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfPrepFDD      PRESENCE optional } |
    { ID id-FDD-DCHs-to-Modify      CRITICALITY reject  TYPE FDD-DCHs-to-Modify     PRESENCE optional   } |
    { ID id-DCHs-to-Add-FDD     CRITICALITY reject  TYPE DCH-FDD-Information        PRESENCE optional   } |
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepFDD     PRESENCE optional } |
    { ID id-DSCH-Modify-RL-ReconfPrepFDD        CRITICALITY reject  TYPE DSCH-Modify-RL-ReconfPrepFDD     PRESENCE optional } |
    { ID id-DSCHs-to-Add-FDD            CRITICALITY reject  TYPE DSCH-FDD-Information           PRESENCE optional  } |
    { ID id-DSCH-Delete-RL-ReconfPrepFDD        CRITICALITY reject  TYPE DSCH-Delete-RL-ReconfPrepFDD     PRESENCE optional } |
    { ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject  TYPE RL-InformationList-RL-ReconfPrepFDD  PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional },
    ...
}

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

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    dl-DPCH-SlotFormat              DL-DPCH-SlotFormat      OPTIONAL,
    nrOfDLchannelisationcodes       NrOfDLchannelisationcodes   OPTIONAL,
    tFCI-SignallingMode             TFCI-SignallingMode     OPTIONAL,
    tFCI-Presence                   TFCI-Presence           OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
    multiplexingPosition            MultiplexingPosition        OPTIONAL,
```

```
    limitedPowerIncrease            LimitedPowerIncrease        OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

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

DCH-DeleteList-RL-ReconfPrepFDD             ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-Information                    DSCH-ModifyInfo-RL-ReconfPrepFDD    OPTIONAL,
    pdSCH-RL-ID                         RL-ID                       OPTIONAL,
    tFCS                                TFCS                        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-Modify-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EnhancedDSCHPCIndicator         CRITICALITY ignore  EXTENSION EnhancedDSCHPCIndicator    PRESENCE optional}|
    { ID id-EnhancedDSCHPC                  CRITICALITY ignore  EXTENSION EnhancedDSCHPC         PRESENCE conditional},
    -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
    ...
}

DSCH-ModifyInfo-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyInformationItem-RL-ReconfPrepFDD

DSCH-ModifyInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    trChSourceStatisticsDescriptor      TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet                  TransportFormatSet              OPTIONAL,
    allocationRetentionPriority         AllocationRetentionPriority     OPTIONAL,
    schedulingPriorityIndicator         SchedulingPriorityIndicator     OPTIONAL,
    bLER                                BLER                            OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    iE-Extensions                       ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass            CRITICALITY ignore  EXTENSION TrafficClass              PRESENCE optional }|
    { ID id-BindingID                       CRITICALITY ignore      EXTENSION   BindingID       PRESENCE            optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress     PRESENCE    optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

DSCH-Delete-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-Information                    DSCH-Info-Delete-RL-ReconfPrepFDD,
    iE-Extensions                       ProtocolExtensionContainer { {DSCH-Delete-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-Delete-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Info-Delete-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-DeleteInformationItem-RL-REconfPrepFDD

DSCH-DeleteInformationItem-RL-REconfPrepFDD ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD         ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-ReconfPrepFDD-IEs}
}

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

RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                       RL-ID,
    sSDT-Indication                 SSDT-Indication     OPTIONAL,
    sSDT-CellIdentity               SSDT-CellID     OPTIONAL
    -- The IE shall be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
    transmitDiversityIndicator      TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to “none”
    iE-Extensions                   ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-CellID          PRESENCE conditional }|
    -- This IE shall be present if Enhanced DSCH PC IE is present in either the DSCHs to Modify IE or the DSCHs to Add IE.
    { ID id-DLReferencePower        CRITICALITY ignore  EXTENSION   DL-Power               PRESENCE optional}|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info  PRESENCE    optional }|
    { ID id-DL-DPCH-TimingAdjustment CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment  PRESENCE optional }|
    { ID id-Qth-Parameter   CRITICALITY ignore      EXTENSION   Qth-Parameter       PRESENCE optional }|
    { ID id-Phase-Reference-Update-Indicator    CRITICALITY ignore      EXTENSION   Phase-Reference-Update-Indicator     PRESENCE optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-Information-to-Modify            CRITICALITY reject      EXTENSION HSDSCH-Information-to-Modify    PRESENCE optional}|
    { ID id-HSDSCH-FDD-Information-to-Add       CRITICALITY reject      EXTENSION HSDSCH-FDD-Information                PRESENCE optional}|
    { ID id-HSDSCH-FDD-Information-to-Delete        CRITICALITY reject      EXTENSION HSDSCH-DeleteList-RL-ReconfPrepFDD PRESENCE optional}|
    { ID id-HSPDSCH-RL-ID                       CRITICALITY reject      EXTENSION RL-ID             PRESENCE optional}|
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation       CRITICALITY ignore      EXTENSION  UE-Support-Of-Dedicated-Pilots-For-Channel-
Estimation      PRESENCE optional}|
    { 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},
    ...
}

HSDSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepFDD

HSDSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    hSDSCH-MACdFlow-ID                          HSDSCH-MACdFlow-ID,
    iE-Extensions                               ProtocolExtensionContainer { { HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

    /* partly omitted */


-- **************************************************************
--
-- RADIO LINK RECONFIGURATION READY FDD
--
-- **************************************************************

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

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

```
    { ID id-RL-InformationResponseList-RL-ReconfReadyFDD    CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReadyFDD    PRESENCE optional
    } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

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

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

RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
    rL-ID                           RL-ID,
    max-UL-SIR                      UL-SIR          OPTIONAL,
    min-UL-SIR                      UL-SIR          OPTIONAL,
    maximumDLTxPower                DL-Power        OPTIONAL,
    minimumDLTxPower                DL-Power        OPTIONAL,
    secondary-CCPCH-Info            Secondary-CCPCH-Info        OPTIONAL,
    dl-CodeInformationList          DL-CodeInformationList-RL-ReconfReadyFDD    OPTIONAL,
    dCHInformationResponse          DCH-InformationResponseList-RL-ReconfReadyFDD   OPTIONAL,
    dSCHsToBeAddedOrModified        DSCHsToBeAddedOrModified-RL-ReconfReadyFDD      OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator  CRITICALITY ignore      EXTENSION       DL-PowerBalancing-UpdatedIndicator     PRESENCE optional}|
    { ID id-HSDSCH-FDD-Information-Response         CRITICALITY ignore      EXTENSION HSDSCH-FDD-Information-Response    PRESENCE optional}|
    { ID id-Primary-CPICH-Usage-For-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-For-Channel-Estimation     PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information-Change       CRITICALITY ignore  EXTENSION   Secondary-CPICH-Information-Change    PRESENCE optional },
    ...
}

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

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

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

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

DSCHsToBeAddedOrModified-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container { {DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD} }
```

```
DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCHsToBeAddedOrModified-FDD    CRITICALITY ignore  TYPE DSCH-FDD-InformationResponse    PRESENCE mandatory   }
}

RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-RNTI               CRITICALITY ignore          EXTENSION DSCH-RNTI     PRESENCE optional }|
    { ID id-HSDSCH-RNTI         CRITICALITY reject      EXTENSION HSDSCH-RNTI                   PRESENCE optional }|
    { ID id-MAChs-ResetIndicator    CRITICALITY reject      EXTENSION MAChs-ResetIndicator              PRESENCE optional },
    ...
}

/* partly omitted */

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- **************************************************************

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

RadioLinkReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime             PRESENCE optional  } |
    { ID id-UL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional } |
    { ID id-DL-DPCH-Information-RL-ReconfRqstFDD            CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional } |
    { ID id-FDD-DCHs-to-Modify      CRITICALITY reject  TYPE FDD-DCHs-to-Modify     PRESENCE optional   } |
    { ID id-DCHs-to-Add-FDD     CRITICALITY reject  TYPE DCH-FDD-Information        PRESENCE optional   } |
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD     CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstFDD     PRESENCE optional }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                            TFCS    OPTIONAL,
    tFCI-SignallingMode             TFCI-SignallingMode OPTIONAL,
    limitedPowerIncrease            LimitedPowerIncrease    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
```

```
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstFDD            ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore      EXTENSION   RL-ReconfigurationRequestFDD-RL-InformationList
    PRESENCE    optional}|
    { ID id-DL-ReferencePowerInformation            CRITICALITY ignore  EXTENSION   DL-ReferencePowerInformation         PRESENCE optional }|
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation       CRITICALITY ignore      EXTENSION  UE-Support-Of-Dedicated-Pilots-For-Channel-
Estimation      PRESENCE optional}|
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH        CRITICALITY ignore     EXTENSION   UE-Support-Of-Dedicated-Pilots-
For-Channel-Estimation-Of-HS-DSCH       PRESENCE optional},
    ...
}

RL-ReconfigurationRequestFDD-RL-InformationList ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }

RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore  TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE optional
    }
}

RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
    rL-ID                   RL-ID,
    rL-Specific-DCH-Info    RL-Specific-DCH-Info OPTIONAL,
    iE-Extensions           ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

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

/* partly omitted */
```

```
-- **************************************************************
--
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
--
-- **************************************************************

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

RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID    id-HSDSCH-FDD-Update-Information        CRITICALITY     reject      TYPE    HSDSCH-FDD-Update-Information       PRESENCE optional}|
    { ID    id-RL-ParameterUpdateIndicationFDD-RL-InformationList       CRITICALITY     reject  TYPE                RL-ParameterUpdateIndicationFDD-RL-
InformationList     PRESENCE optional   },
    ...
}

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

RL-ParameterUpdateIndicationFDD-RL-InformationList-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ParameterUpdateIndicationFDD-RL-Information-Item     CRITICALITY reject  TYPE RL-ParameterUpdateIndicationFDD-RL-Information-Item
    PRESENCE mandatory  }
}

RL-ParameterUpdateIndicationFDD-RL-Information-Item::= SEQUENCE {
    rL-ID                               RL-ID,
    phase-Reference-Update-Indicator    Phase-Reference-Update-Indicator    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs} } OPTIONAL,
    ...
}

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

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

/* partly omitted */
```

## 9.3.4 Information Element Definitions

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

/* partly omitted */

-- P

PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
    terminating-background-call,
    terminating-low-priority-signalling,
    ...,
    terminating-high-priority-signalling,
    terminating–cause-unknown
}
-- See in [16]

PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
    p-tmsi-gsm-map,
    imsi-ds-41,
    tmsi-ds-41,
    ...
}
-- See in [16]

PartialReportingIndicator ::= ENUMERATED {
    partial-reporting-allowed
}

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
    crc-not-included
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm

PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem
```

```
PCH-InformationItem ::= SEQUENCE {
    transportFormatSet              TransportFormatSet,
    iE-Extensions                   ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PC-Preamble ::= INTEGER(0..7,...)

PDSCHCodeMapping ::= SEQUENCE {
    dL-ScramblingCode       DL-ScramblingCode,
    signallingMethod        PDSCHCodeMapping-SignallingMethod,
    iE-Extensions           ProtocolExtensionContainer { { PDSCHCodeMapping-ExtIEs} } OPTIONAL,
    ...
}

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

PDSCHCodeMapping-SignallingMethod ::= CHOICE {
    pDSCHCodeMapping-SignallingMethod-CodeRange     PDSCHCodeMapping-SignallingMethod-CodeRange,
    pDSCHCodeMapping-SignallingMethod-TFCIRange     PDSCHCodeMapping-SignallingMethod-TFCIRange,
    pDSCHCodeMapping-SignallingMethod-Explicit      PDSCHCodeMapping-SignallingMethod-Explicit,
    ...,
    pDSCHCodeMapping-SignallingMethod-Replace       PDSCHCodeMapping-SignallingMethod-Replace
 }

PDSCHCodeMapping-SignallingMethod-CodeRange ::= SEQUENCE (SIZE (1..maxNoCodeGroups)) OF
    SEQUENCE {
        spreadingFactor         SpreadingFactor,
        multi-code-info         Multi-code-info,
        start-CodeNumber        CodeNumber,
        stop-CodeNumber         CodeNumber,
        iE-Extensions           ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs} } OPTIONAL,
        ...
    }

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

PDSCHCodeMapping-SignallingMethod-TFCIRange ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
    SEQUENCE {
        maxTFCIvalue            MaxTFCIvalue,
        spreadingFactor         SpreadingFactor,
        multi-code-info         Multi-code-info,
```

```
        codeNumber              CodeNumber,
        iE-Extensions           ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs} } OPTIONAL,
        ...
    }

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

PDSCHCodeMapping-SignallingMethod-Explicit ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEQUENCE {
        spreadingFactor         SpreadingFactor,
        multi-code-info         Multi-code-info,
        codeNumber              CodeNumber,
        iE-Extensions           ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs} } OPTIONAL,
        ...
    }

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

PDSCHCodeMapping-SignallingMethod-Replace ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEQUENCE {
        tfci-Field2                TFCS-MaxTFCI-field2-Value,
        spreadingFactor            SpreadingFactor,
        multi-CodeInfo             Multi-code-info,
        codeNumber                 CodeNumber,
        iE-Extensions              ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs} }   OPTIONAL,
    ...
}

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

Periodic ::= SEQUENCE {
    reportPeriodicity       ReportPeriodicity,
    iE-Extensions           ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    ...
}

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

PeriodicInformation ::= SEQUENCE {
    informationReportPeriodicity        InformationReportPeriodicity,
    iE-Extensions                       ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
    ...
}
```

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

Permanent-NAS-UE-Identity ::= CHOICE {
    imsi        IMSI,
    ...
}

Phase-Reference-Update-Indicator ::= ENUMERATED {
    Phase-reference-needs-to-be-changed
}

PLMN-Identity ::= OCTET STRING (SIZE(3))

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset             ::= INTEGER (0..24)

PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters

PRCDeviation ::= ENUMERATED {
    prcd1,
    prcd2,
    prcd5,
    prcd10,
    ...
}

Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
}

PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
```

```
PrimaryCPICH-Power          ::= INTEGER (-100..500)
-- step 0.1 (Range –10.0..50.0) Unit is dBm

PrimaryCPICH-EcNo           ::= INTEGER (-30..30)

Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
   primary-CPICH-may-be-used,
   primary-CPICH-shall-not-be-used
}

PrimaryCCPCH-RSCP           ::= INTEGER (0..91)
-- According to maping in [14]

PrimaryScramblingCode           ::= INTEGER (0..511)

PriorityLevel               ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority

PriorityQueue-Id ::= INTEGER (0..maxNrOfPrioQueues-1)

PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem

PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    t1                                  T1,
    mAC-hsWindowSize                    MAC-hsWindowSize,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate      OPTIONAL,
    mACdPDU-Size-Index                  MACdPDU-Size-IndexList,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }        OPTIONAL,
    ...
}

PriorityQueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-to-Modify

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueue-Id                    PriorityQueue-Id,
    schedulingPriorityIndicator         SchedulingPriorityIndicator             OPTIONAL,
    t1                                  T1                                      OPTIONAL,
    mAC-hsWindowSize                    MAC-hsWindowSize                        OPTIONAL,
    mAChsGuaranteedBitRate              MAChsGuaranteedBitRate                  OPTIONAL,
    mACdPDU-Size-Index-to-Modify        MACdPDU-Size-IndexList-to-Modify                    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } }      OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

PropagationDelay            ::= INTEGER (0..255)

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

/* partly omitted */

-- S

SAC                 ::= OCTET STRING (SIZE (2))

SAI ::= SEQUENCE {
    pLMN-Identity       PLMN-Identity,
    lAC                 LAC,
    sAC                 SAC,
    iE-Extensions       ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
}

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

SAT-ID ::= INTEGER (0..63)

SCH-TimeSlot                ::= INTEGER (0..6)

ScaledAdjustmentRatio           ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

Secondary-CCPCH-Info::= SEQUENCE {
    fDD-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    dl-TFCS                                 TFCS,
    secondaryCCPCH-SlotFormat               SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE shall be present only if the Secondary CCPCH Slot Format IE is equal to any of the values from 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    sTTD-Indicator                          STTD-Indicator,
    fACH-PCH-InformationList                FACH-PCH-InformationList,
    iB-schedulingInformation                IB-SchedulingInformation,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
Secondary-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS                                 TFCS,
    tFCI-Coding                             TFCI-Coding,
    secondary-CCPCH-TDD-InformationList     Secondary-CCPCH-TDD-InformationList,
    fACH-InformationList                    FACH-InformationList,
    pCH-InformationList                     PCH-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CPICH-Information ::= SEQUENCE {
   dl-ScramblingCode                        DL-ScramblingCode,
   fDD-DL-ChannelisationCodeNumber          FDD-DL-ChannelisationCodeNumber,
   iE-Extensions                            ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CPICH-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CPICH-Information-Change ::= CHOICE {
new-secondary-CPICH                 Secondary-CPICH-Information,
secondary-CPICH-shall-not-be-used   NULL,
...
}

Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS                                 TFCS,
    tFCI-Coding                             TFCI-Coding,
    secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList                    FACH-InformationList,
    pCH-InformationList                     PCH-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem

Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType,
```

```
    tFCI-Presence                   TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information                Secondary-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset       TDD-PhysicalChannelOffset,
    repetitionLength                RepetitionLength,
    repetitionPeriod                RepetitionPeriod,
    iE-Extensions                   ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem

Secondary-LCR-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tFCI-Presence                           TFCI-Presence,
    secondary-LCR-CCPCH-TDD-Code-Information    Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionLength                        RepetitionLength,
    repetitionPeriod                        RepetitionPeriod,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem

Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode          TDD-ChannelisationCode,
    iE-Extensions                   ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-LCR-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem

Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCodeLCR       TDD-ChannelisationCodeLCR,
    s-CCPCH-TimeSlotFormat-LCR      TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions                   ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    ...
}
```

```
Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
    ...
}

Seed ::= INTEGER (0..63)

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER(0..614399)

SFNSFN-TDD ::= INTEGER(0..40961)

GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE {
    geographicalCoordinate                      GeographicalCoordinate,
    altitudeAndDirection                        GA-AltitudeAndDirection  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
    ...
}

GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit                   SFNSFNChangeLimit                   OPTIONAL,
    predictedSFNSFNDeviationLimit       PredictedSFNSFNDeviationLimit       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

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

```
SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation      SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-ID       UC-ID,
            sFNSFNValue                 SFNSFNValue,
            sFNSFNQuality               SFNSFNQuality                   OPTIONAL,
            sFNSFNDriftRate             SFNSFNDriftRate,
            sFNSFNDriftRateQuality      SFNSFNDriftRateQuality,
            sFNSFNTimeStampInformation  SFNSFNTimeStampInformation      OPTIONAL,
            iE-Extensions               ProtocolExtensionContainer { {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }     OPTIONAL,
            ...
        },
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation     SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
        SEQUENCE {
            uC-ID       UC-ID,
            iE-Extensions       ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
            ...
        },
    iE-Extensions       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }     OPTIONAL,
    ...
}

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

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

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

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip


SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD     SFN,
    sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,
    ...
}

SFNSFNTimeStamp-TDD::= SEQUENCE {
```

```
    sFN                 SFN,
    timeSlot            TimeSlot,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
    ...
}

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

SFNSFNValue ::= CHOICE {
    sFNSFN-FDD      SFNSFN-FDD,
    sFNSFN-TDD      SFNSFN-TDD,
    ...
}

SID ::= INTEGER (0..maxNrOfPDUIndexes-1)

SIR-Error-Value         ::= INTEGER (0..125)

SIR-Error-Value-IncrDecrThres           ::= INTEGER (0..124)

SIR-Value               ::= INTEGER (0..63)
-- According to mapping in 25.215/25.225

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SecondaryCCPCH-SlotFormat       ::= INTEGER (0..17,...)
-- refer to 25.211

S-FieldLength               ::= ENUMERATED {
    v1,
    v2,
    ...
}

SNA-Information ::= SEQUENCE {
    pLMN-Identity   PLMN-Identity,
   listOfSNAs           ListOfSNAs                                          OPTIONAL,
   iE-Extensions        ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
   ...
}

SNA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs, ...)) OF SNACode
```

```
SNACode ::= INTEGER (0..65535)

SpecialBurstScheduling ::= INTEGER (1..256)

SplitType ::= ENUMERATED {
    hard,
    logical
}

SpreadingFactor         ::= INTEGER (4| 8| 16| 32| 64| 128| 256)

S-RNTI                  ::= INTEGER (0..1048575)
-- From 0 to 2^20-1

S-RNTI-Group            ::= SEQUENCE {
    sRNTI                   S-RNTI,
    sRNTI-BitMaskIndex      ENUMERATED {
        b1,
        b2,
        b3,
        b4,
        b5,
        b6,
        b7,
        b8,
        b9,
        b10,
        b11,
        b12,
        b13,
        b14,
        b15,
        b16,
        b17,
        b18,
        b19
}
}

SRB-Delay ::= INTEGER(0..7,...)

SSDT-CellID ::= ENUMERATED {
    a,
    b,
    c,
    d,
    e,
    f,
    g,
    h
}
```

```
SSDT-CellID-Length ::= ENUMERATED {
    short,
    medium,
    long
}

SSDT-Indication ::= ENUMERATED {
    sSDT-active-in-the-UE,
    sSDT-not-active-in-the-UE
}

SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-supported,
    sSDT-not-supported
}

STTD-Indicator  ::= ENUMERATED {
    active,
    inactive
}

STTD-SupportIndicator   ::= ENUMERATED {
    sTTD-Supported,
    sTTD-not-Supported
}

Support-8PSK ::= ENUMERATED {
    v8PSK-Supported
}

SyncCase ::= INTEGER (1..2,...)

SynchronisationConfiguration ::= SEQUENCE {
    n-INSYNC-IND            INTEGER (1..256),
    n-OUTSYNC-IND           INTEGER (1..256),
    t-RLFAILURE             INTEGER (0..255),
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s
    iE-Extensions           ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }    OPTIONAL,
    ...
}

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

SYNC-UL-ProcParameters  ::= SEQUENCE {
    maxSYNC-UL-transmissions        ENUMERATED {v1, v2, v4, v8, ...},
    powerRampStep                   INTEGER (0..3, ...),
    ...
    }
```

```
/* partly omitted */

-- U

UARFCN                  ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See 25.101, 25.105

UDRE ::= ENUMERATED {
    lessThan1,
    between1-and-4,
    between4-and-8,
    over8,
    ...
}

UE-Capabilities-Info ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category      INTEGER (1..64,...),
    mAChs-Reordering-Buffer-Size        INTEGER (1..300,...),
    iE-Extensions                       ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }       OPTIONAL,
    ...
}

UE-Capabilities-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation ::= ENUMERATED {
   dedicated-pilots-for-channel-estimation-supported
}

UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH ::= ENUMERATED {
   dedicated-pilots-for-channel-estimation-supported
}

UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}

UL-Timeslot-Information::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem

UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType,
    tFCI-Presence                   TFCI-Presence,
    uL-Code-Information             TDD-UL-Code-Information,
    iE-Extensions                   ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    ...
}
```

```
UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem

UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR                         TimeSlotLCR,
    midambleShiftLCR                    MidambleShiftLCR,
    tFCI-Presence                       TFCI-Presence,
    uL-Code-LCR-InformationList        TDD-UL-Code-LCR-Information,
    iE-Extensions                       ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem

UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    uL-TimeslotISCP             UL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
    ...
}

UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF    UL-TimeSlot-ISCP-LCR-InfoItem

UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR                     TimeSlotLCR,
    iSCP                            UL-Timeslot-ISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }   OPTIONAL,
    ...
 }

UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-ISCP-Value ::= UL-TimeslotISCP

UL-Timeslot-ISCP-Value-IncrDecrThres ::= INTEGER(0..126)
-- Unit dB. Step 0.5dB
-- e.g. Value 100 means 50dB
```

```
UL-TimingAdvanceCtrl-LCR ::= SEQUENCE {
    sync-UL-codes-bitmap                        BIT STRING (SIZE(8)),
    fPACH-info                                  FPACH-Information,
    prxUpPCHdes                                 INTEGER (-120 .. –58, ...),
    syncUL-procParameter                        SYNC-UL-ProcParameters,
    mMax                                        INTEGER (1..32),
    ...
    }

Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-SIR                  ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.

UC-ID ::= SEQUENCE {
    rNC-ID              RNC-ID,
    c-ID                C-ID,
    iE-Extensions           ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
    ...
}

UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCCH-SlotFormat         ::= INTEGER (0..5,...)

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
}

UL-ScramblingCode ::= SEQUENCE {
    ul-ScramblingCodeNumber     UL-ScramblingCodeNumber,
    ul-ScramblingCodeLength     UL-ScramblingCodeLength,
    iE-Extensions           ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
}
```

```
UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
}

UL-ScramblingCodeNumber         ::= INTEGER (0..16777215)

UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
    uL-Synchronisation-StepSize         UL-Synchronisation-StepSize,
    uL-Synchronisation-Frequency            UL-Synchronisation-Frequency,
    iE-Extensions                   ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }       OPTIONAL,
    ...
}

UL-Synchronisation-Parameters-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Synchronisation-StepSize ::= INTEGER (1..8)

UL-Synchronisation-Frequency ::= INTEGER (1..8)

UL-TimeslotISCP         ::= INTEGER (0..127)
-- According to mapping in [14]

URA-ID                  ::= INTEGER (0..65535)

URA-Information ::= SEQUENCE {
    uRA-ID                              URA-ID,
    multipleURAsIndicator               MultipleURAsIndicator,
    rNCsWithCellsInTheAccessedURA-List  RNCsWithCellsInTheAccessedURA-List  OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
    ...
}

URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item

RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID                          RNC-ID,
    iE-Extensions                   ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
    ...
}
```

```
RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-ID                ::= INTEGER (0..255)

USCH-Information ::=  SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem

USCH-InformationItem ::= SEQUENCE {
    uSCH-ID                             USCH-ID,
    ul-CCTrCH-ID                        CCTrCH-ID,
    trChSourceStatisticsDescriptor      TrCH-SrcStatisticsDescr,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    schedulingPriorityIndicator         SchedulingPriorityIndicator,
    rb-Info                             RB-Info,
    iE-Extensions                       ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
    ...
}

USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass        CRITICALITY ignore  EXTENSION TrafficClass      PRESENCE mandatory   }|
    { ID id-BindingID                       CRITICALITY ignore      EXTENSION   BindingID   PRESENCE               optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress     PRESENCE    optional },
    -- Shall be ignored if bearer establishment with ALCAP.
    ...
}

-- V
-- W
-- X
-- Y
-- Z

END
```

## 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

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxCodeNumComp-1                        INTEGER ::= 255
maxRateMatching                         INTEGER ::= 256
maxNoCodeGroups                         INTEGER ::= 256
maxNoOfDSCHs                            INTEGER ::= 10
maxNoOfDSCHsLCR                         INTEGER ::= 10
maxNoOfRB                               INTEGER ::= 32
maxNoOfUSCHs                            INTEGER ::= 10
maxNoOfUSCHsLCR                         INTEGER ::= 10
maxNoTFCIGroups                         INTEGER ::= 256
maxNrOfTFCs                             INTEGER ::= 1024
maxNrOfTFs                              INTEGER ::= 32
maxNrOfCCTrCHs                          INTEGER ::= 16
maxNrOfCCTrCHsLCR                       INTEGER ::= 16
maxNrOfDCHs                             INTEGER ::= 128
maxNrOfDL-Codes                         INTEGER ::= 8
maxNrOfDPCHs                            INTEGER ::= 240
maxNrOfDPCHsLCR                         INTEGER ::= 240
maxNrOfErrors                           INTEGER ::= 256
maxNrOfMACcshSDU-Length                 INTEGER ::= 16
maxNrOfPoints                           INTEGER ::= 15
maxNrOfRLs                              INTEGER ::= 16
maxNrOfRLSets                           INTEGER ::= maxNrOfRLs
maxNrOfRLSets-1                         INTEGER ::= 15  -- maxNrOfRLSets - 1
maxNrOfRLs-1                            INTEGER ::= 15  -- maxNrOfRLs – 1
maxNrOfRLs-2                            INTEGER ::= 14  -- maxNrOfRLs – 2
maxNrOfULTs                             INTEGER ::= 15
maxNrOfULTsLCR                          INTEGER ::= 6
maxNrOfDLTs                             INTEGER ::= 15
```

```
maxNrOfDLTsLCR                          INTEGER ::= 6
maxRNCinURA-1                           INTEGER ::= 15
maxTTI-Count                            INTEGER ::= 4
maxCTFC                                 INTEGER ::= 16777215
maxNrOfNeighbouringRNCs                 INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC              INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC              INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC              INTEGER ::= 256
maxNrOfFACHs                            INTEGER ::= 8
maxNrOfLCRTDDNeighboursPerRNC           INTEGER ::= 256
maxFACHCountPlus1                       INTEGER ::= 10
maxIBSEG                                INTEGER ::= 16
maxNrOfSCCPCHs                          INTEGER ::= 8
maxTFCI1Combs                           INTEGER ::= 512
maxTFCI2Combs                           INTEGER ::= 1024
maxTFCI2Combs-1                         INTEGER ::= 1023
maxTGPS                                 INTEGER ::= 6
maxNrOfTS                               INTEGER ::= 15
maxNrOfLevels                           INTEGER ::= 256
maxNoOfDSCHs-1                          INTEGER ::= 9
maxNrOfTsLCR                            INTEGER ::= 6
maxNoSat                                INTEGER ::= 16
maxNoGPSTypes                           INTEGER ::= 8
maxNrOfMeasNCell                        INTEGER ::= 96
maxNrOfMeasNCell-1                      INTEGER ::= 95  -- maxNrOfMeasNCell – 1
maxResetContext                         INTEGER ::= 250
maxResetContextGroup                    INTEGER ::= 32
maxNrOfHARQProc                         INTEGER ::= 8
maxNrOfHSSCCHCodes                      INTEGER ::= 4
maxNrOfHSSICHs                          INTEGER ::= 4
maxNrOfMACdFlows                        INTEGER ::= 8
maxNrOfMACdFlows-1                      INTEGER ::= 7   -- maxNrOfMACdFlows - 1
maxNrOfPDUIndexes                       INTEGER ::= 8
maxNrOfPDUIndexes-1                     INTEGER ::= 7   -- maxNrOfPDUIndexes - 1
maxNrOfPrioQueues                       INTEGER ::= 8
maxNrOfPrioQueues-1                     INTEGER ::= 7   -- maxNrOfPrioQueues - 1
maxNrOfSNAs                             INTEGER ::= 65535

-- **************************************************************
--
-- 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                                             ProtocolIE-ID ::= 12
id-DRXCycleLengthCoefficient                            ProtocolIE-ID ::= 70
id-DedicatedMeasurementObjectType-DM-Fail-Ind           ProtocolIE-ID ::= 470
id-DedicatedMeasurementObjectType-DM-Fail               ProtocolIE-ID ::= 471
id-DedicatedMeasurementObjectType-DM-Rprt               ProtocolIE-ID ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst               ProtocolIE-ID ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp                ProtocolIE-ID ::= 73
id-DedicatedMeasurementType                             ProtocolIE-ID ::= 74
```

```
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD        ProtocolIE-ID ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD        ProtocolIE-ID ::= 83
id-Guaranteed-Rate-Information                              ProtocolIE-ID ::= 41
id-IMSI                                                    ProtocolIE-ID ::= 84
id-HCS-Prio                                                ProtocolIE-ID ::= 311
id-L3-Information                                          ProtocolIE-ID ::= 85
id-AdjustmentPeriod                                        ProtocolIE-ID ::= 90
id-MaxAdjustmentStep                                       ProtocolIE-ID ::= 91
id-MeasurementFilterCoefficient                            ProtocolIE-ID ::= 92
id-MessageStructure                                        ProtocolIE-ID ::= 57
id-MeasurementID                                           ProtocolIE-ID ::= 93
id-Neighbouring-GSM-CellInformation                        ProtocolIE-ID ::= 13
id-Neighbouring-UMTS-CellInformationItem                   ProtocolIE-ID ::= 95
id-NRT-Load-Information-Value                              ProtocolIE-ID ::= 305
id-NRT-Load-Information-Value-IncrDecrThres                ProtocolIE-ID ::= 306
id-PagingArea-PagingRqst                                   ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation                             ProtocolIE-ID ::= 103
id-PartialReportingIndicator                               ProtocolIE-ID ::= 472
id-Permanent-NAS-UE-Identity                               ProtocolIE-ID ::= 17
id-PowerAdjustmentType                                     ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation                             ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRqstFDD                       ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRqstTDD                       ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRqstFDD                       ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRqstTDD                       ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRqst                          ProtocolIE-ID ::= 114
id-RL-Information-RL-FailureInd                            ProtocolIE-ID ::= 115
id-RL-Information-RL-ReconfPrepFDD                         ProtocolIE-ID ::= 116
id-RL-Information-RL-RestoreInd                            ProtocolIE-ID ::= 117
id-RL-Information-RL-SetupRqstFDD                          ProtocolIE-ID ::= 118
id-RL-Information-RL-SetupRqstTDD                          ProtocolIE-ID ::= 119
id-RL-InformationItem-RL-CongestInd                        ProtocolIE-ID ::= 55
id-RL-InformationItem-DM-Rprt                              ProtocolIE-ID ::= 120
id-RL-InformationItem-DM-Rqst                              ProtocolIE-ID ::= 121
id-RL-InformationItem-DM-Rsp                               ProtocolIE-ID ::= 122
id-RL-InformationItem-RL-PreemptRequiredInd                ProtocolIE-ID ::= 2
id-RL-InformationItem-RL-SetupRqstFDD                      ProtocolIE-ID ::= 123
id-RL-InformationList-RL-CongestInd                        ProtocolIE-ID ::= 56
id-RL-InformationList-RL-AdditionRqstFDD                   ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRqst                      ProtocolIE-ID ::= 125
id-RL-InformationList-RL-PreemptRequiredInd                ProtocolIE-ID ::= 1
id-RL-InformationList-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD                ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD                ProtocolIE-ID ::= 128
id-RL-InformationResponse-RL-SetupRspTDD                   ProtocolIE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD            ProtocolIE-ID ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD            ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD              ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD               ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD            ProtocolIE-ID ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD            ProtocolIE-ID ::= 135
```

```
id-RL-InformationResponseList-RL-ReconfRspFDD                    ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD                        ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD                     ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail                       ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt                                ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst                                ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp                                 ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd                              ProtocolIE-ID ::= 146
id-RL-Set-Information-RL-RestoreInd                              ProtocolIE-ID ::= 147
id-RL-Set-Successful-InformationItem-DM-Fail                     ProtocolIE-ID ::= 473
id-RL-Set-Unsuccessful-InformationItem-DM-Fail                   ProtocolIE-ID ::= 474
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind               ProtocolIE-ID ::= 475
id-RL-Successful-InformationItem-DM-Fail                         ProtocolIE-ID ::= 476
id-RL-Unsuccessful-InformationItem-DM-Fail                       ProtocolIE-ID ::= 477
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind                   ProtocolIE-ID ::= 478
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
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
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
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
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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-ReconfigurationReadyTDD-RL-Information                         ProtocolIE-ID ::= 320
id-RL-ReconfigurationRequestTDD-RL-Information                       ProtocolIE-ID ::= 321
id-CommonTransportChannelResourcesInitialisationNotRequired          ProtocolIE-ID ::= 250
id-DelayedActivation                                                 ProtocolIE-ID ::= 312
id-DelayedActivationList-RL-ActivationCmdFDD                         ProtocolIE-ID ::= 313
id-DelayedActivationInformation-RL-ActivationCmdFDD                  ProtocolIE-ID ::= 314
id-DelayedActivationList-RL-ActivationCmdTDD                         ProtocolIE-ID ::= 315
id-DelayedActivationInformation-RL-ActivationCmdTDD                  ProtocolIE-ID ::= 316
id-neighbouringTDDCellMeasurementInformationLCR                      ProtocolIE-ID ::= 251
id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD               ProtocolIE-ID ::= 150
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD           ProtocolIE-ID ::= 151
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                      ProtocolIE-ID ::= 451
id-HSDSCH-FDD-Information                                            ProtocolIE-ID ::= 452
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id-HSDSCH-FDD-Information-Response                                ProtocolIE-ID ::= 453
id-HSDSCH-FDD-Information-to-Add                                  ProtocolIE-ID ::= 454
id-HSDSCH-FDD-Information-to-Delete                               ProtocolIE-ID ::= 455
id-HSDSCH-FDD-Update-Information                                  ProtocolIE-ID ::= 466
id-HSDSCH-Information-to-Modify                                   ProtocolIE-ID ::= 456
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd    ProtocolIE-ID ::= 516
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd    ProtocolIE-ID ::= 517
id-HSDSCH-RNTI                                                    ProtocolIE-ID ::= 457
id-HSDSCH-TDD-Information                                         ProtocolIE-ID ::= 458
id-HSDSCH-TDD-Information-Response                                ProtocolIE-ID ::= 459
id-HSDSCH-TDD-Information-Response-LCR                            ProtocolIE-ID ::= 460
id-HSDSCH-TDD-Information-to-Add                                  ProtocolIE-ID ::= 461
id-HSDSCH-TDD-Information-to-Delete                               ProtocolIE-ID ::= 462
id-HSDSCH-TDD-Update-Information                                  ProtocolIE-ID ::= 467
id-HSPDSCH-RL-ID                                                  ProtocolIE-ID ::= 463
id-Angle-Of-Arrival-Value-LCR                                     ProtocolIE-ID ::= 148
id-TrafficClass                                                   ProtocolIE-ID ::= 158
id-TFCI-PC-SupportIndicator                                       ProtocolIE-ID ::= 248
id-Qth-Parameter                                                  ProtocolIE-ID ::= 253
id-PDSCH-RL-ID                                                    ProtocolIE-ID ::= 323
id-TimeSlot-RL-SetupRspTDD                                        ProtocolIE-ID ::= 325
id-GERAN-Cell-Capability                                          ProtocolIE-ID ::= 468
id-GERAN-Classmark                                                ProtocolIE-ID ::= 469
id-DSCH-InitialWindowSize                                         ProtocolIE-ID ::= 480
id-UL-Synchronisation-Parameters-LCR                              ProtocolIE-ID ::= 464
id-SNA-Information                                                ProtocolIE-ID ::= 479
id-MAChs-ResetIndicator                                           ProtocolIE-ID ::= 465
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD     ProtocolIE-ID ::= 481
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD     ProtocolIE-ID ::= 482
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                     ProtocolIE-ID ::= 483
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 484
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 485
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 486
id-DL-CCTrCH-InformationItem-RL-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-Rsp                                             ProtocolIE-ID ::= 499
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD                         ProtocolIE-ID ::= 500
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD                         ProtocolIE-ID ::= 501
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD                      ProtocolIE-ID ::= 502
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD                      ProtocolIE-ID ::= 503
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD                      ProtocolIE-ID ::= 504
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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-Information-Item                      ProtocolIE-ID ::= 524
id-RL-ParameterUpdateIndicationFDD-RL-InformationList                       ProtocolIE-ID ::= 518
id-Phase-Reference-Update-Indicator                                         ProtocolIE-ID ::= 525
id-Primary-CPICH-Usage-For-Channel-Estimation                               ProtocolIE-ID ::= 519
id-Secondary-CPICH-Information-Change                                       ProtocolIE-ID ::= 521
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation                    ProtocolIE-ID ::= 522
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH         ProtocolIE-ID ::= 523


END
```

**3GPP TSG-RAN3 Meeting #37**
**Budapest, Hungary, 25th – 29th, August 2003**

***Tdoc ⌘R3-031178***

*CR-Form-v7*

# CHANGE REQUEST

⌘ **25.433** **CR** **869** ⌘ **rev** **1** ⌘ Current version: **5.5.0** ⌘

*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 ☐ Radio Access Network ☒ Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Phase Reference Signalling Support |
| ***Source:*** | ⌘ | RAN3 |
| ***Work item code:*** | ⌘ | TEI5 |
| ***Date:*** | ⌘ | 25/08/2003 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | Rel-5 |

*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:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*Rel-4 (Release 4)*
*Rel-5 (Release 5)*
*Rel-6 (Release 6)*

***Reason for change:*** ⌘ According to the current understanding in RAN1, the Node B is not provided with knowledge over the Iub of which phase reference a certain UE is using.

This problem can be avoided by introducing phase reference signalling over Iub and Iur. Note that the phase reference is one of

- P-CPICH
- one of possibly several S-CPICHs
- dedicated pilot

as specified in 25.211.

During RAN1 and RNA3 unofficial joint session, it turned out that without the measurement, in principle S-CPICH cannot be used. Thus the measurement enhancement(which has been studied under Rel-6 WI) is indeed a correction of incomplete feature. To completed Rel99 beamforming feature, Best Received Cell Portion measurement is included in this CR.

***Summary of change:*** ⌘
- Phase reference signalling is added in RL setup request, RL addition request and RL reconfiguration prepare.
- Best Cell Portions measurement is included in dedicated measurement.

Rev.1:

- In 9.3.6 the ProtocolIE-ID 598 changed to 596, now the new IDs used are 593-596.

| | |
|---|---|
| ***Consequences if not approved:*** | ⌘ RAN1 has identified the following problems if the Node B does not have knowledge of the phase reference used by a certain UE:<br>▪ Node B beam-forming is impossible without knowledge of the phase reference used by each UE.<br>▪ Proper operation of HSDPA in Rel-5 requires the suggested signalling.<br>Impact Analysis:<br>Impact assessment towards the previous version of the specification (same release):<br>This CR has isolated impact with the previous version of the specification. The change is limited only to the phase reference functionality.<br>Impact assessment towards the previous release of the specification:<br>This CR has no impact on previous releases because the functionality is introduced in backward compatible way. |

| | | | | | |
|---|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 8.2.17.2, 8.3.1.2, 8.3.2.2, 8.3.2.4, 8.3.8.2, 8.3.8.4, 9.1.36.1, 9.1.39.1, 9.1.42.1, 9.1.52, 9.2.1.23, 9.2.1.24, new 9.2.2.xz, new 9.2.2.xx, new 9.2.2.x4, new 9.2.2.x, new 9.2.2.x5, 9.3.3, 9.3.4, 9.3.6 | | | |
| | | **Y** | **N** | | |
| ***Other specs affected:*** | ⌘ | **X** | | Other core specifications | ⌘ CR844 TS 25.423 v5.6.0<br>CR144 TS 25.215 v5.4.0 |
| | | | **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.

## 8.2.17 Radio Link Setup

### 8.2.17.2 Successful Operation

/* partly omitted */

**Physical Channels Handling:**

**[FDD - Compressed Mode]:**

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

[FDD - If the *Downlink compressed mode method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information* IE.]

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

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

**[FDD - DL Code Information]:**

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

**[TDD - PDSCH RL ID]:**

[TDD - If the *PDSCH RL ID* IE is included in RADIO LINK SETUP REQUEST message, the Node B shall use the PDSCH RL ID as an identifier for the PDSCH and/or PUSCH in this radio link.]

**[FDD – Phase Reference Handling]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH shall not be used", the Node B shall assume that the UE is not using the Primary CPICH for channel estimation. If the RADIO LINK SETUP REQUEST message does not include the *Primary CPICH Usage For Channel Estimation* IE or includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH may be used", the Node B shall assume that the UE may use the Primary CPICH for channel estimation.]

**General:**

[FDD - If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

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

[FDD - If the *TFCI Signalling Mode* IE within the RADIO LINK SETUP REQUEST message indicates that there shall be a hard split on the TFCI field but the *TFCI2 Bearer Information* IE is not included in the message, then the Node B shall transmit the TFCI2 field with zero power.]

[FDD - If the *TFCI Signalling Mode* IE within the RADIO LINK SETUP REQUEST message indicates that there shall be a hard split on the TFCI and the *TFCI2 Bearer Information* IE is included in the message, then the Node B shall transmit the TFCI2 field with zero power until Synchronization is achieved on the TFCI2 transport bearer and the first valid DSCH TFCI Signalling control frame is received on this bearer (see ref. [24]).]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Length Of TFCI2* IE, then the Node B shall apply the length of TFCI (field 2) indicated in the message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Length Of TFCI2* IE and the *Split Type* IE is present with the value "Hard", then the Node B shall assume the length of the TFCI (field 2) is 5 bits.]

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

**Radio Link Handling:**

**[FDD - Transmit Diversity]:**

[FDD - When the *Diversity Mode* IE is set to "*STTD*", "*Closedloop mode1*" or "*Closedloop mode2*", the Node B shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the *Transmit Diversity Indication* IE]

**DL Power Control:**

[FDD - The Node B shall start any DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. During compressed mode, the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

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

[3.84 Mcps TDD - The Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall start any DL transmission on each DCH type CCTrCH using the initial CCTrCH DL power, as determined above, on each DL DPCH and on each Time Slot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[3.84 Mcps TDD - The Node B shall determine the maximum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[3.84 Mcps TDD - The Node B shall determine the minimum DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the initial DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the Initial DL Power and ignore the *DL Time Slot ISCP info LCR* IE, otherwise the initial DL Power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall start any DL transmission on each timeslot within each DCH type CCTrCH using the initial DL power, as determined above, on each DL DPCH and on each timeslot of the CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[1.28 Mcps TDD - The Node B shall determine the maximum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE.]

[1.28 Mcps TDD - The Node B shall determine the minimum DL power for each timeslot within the DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE.]

[3.84Mcps TDD - If the *DL Time Slot ISCP Info* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

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

[FDD - If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the Node B shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.7, using the *DL Power Balancing Information* IE. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level indicated by the *Initial DL Transmission Power* IE.]

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

**[1.28Mcps TDD - Uplink Synchronisation Parameters LCR]:**

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

**General:**

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

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

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

[FDD - Irrespective of SSDT activation, the Node B shall include in the RADIO LINK SETUP RESPONSE message an indication concerning the capability to support SSDT on this RL. Only if the RADIO LINK SETUP REQUEST message requested SSDT activation and the RADIO LINK SETUP RESPONSE message indicates that the SSDT capability is supported for this RL, SSDT is activated in the Node B.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity for EDSCHPC* IE, the Node B shall activate enhanced DSCH power control, if supported, using the *SSDT Cell Identity For EDSCHPC* IE and *SSDT Cell Identity Length* IE as well as *Enhanced DSCH PC* IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both *SSDT Cell Identity* IE and *SSDT Cell Identity For EDSCHPC* IE, then the Node B shall ignore the value in *SSDT Cell Identity For EDSCHPC* IE. If the enhanced DSCH power control is activated and the TFCI power control in DSCH hard split mode is supported, the primary/secondary status determination in the enhanced DSCH power control is also applied to the TFCI power control in DSCH hard split mode.]

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

/* partly omitted */

## 8.3.1 Radio Link Addition

### 8.3.1.2 Successful Operation

/* partly omitted */

**Physical Channels Handling:**

[TDD – If the *UL DPCH Information* IE is present, the Node B shall configure the new UL DPCH(s) according to the parameters given in the message.]

[TDD – If the *DL DPCH Information* IE is present, the Node B shall configure the new DL DPCH(s) according to the parameters given in the message.]

**[FDD – Compressed Mode]:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Compressed Mode Deactivation Flag* IE with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs. In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD- If the RADIO LINK ADDITION REQUEST message contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information* IE is set to "Code Change".]

**[FDD – DL Code Information]:**

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

**[TDD – CCTrCH Handling]:**

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

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

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

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

**[FDD – Phase Reference Handling]:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH shall not be used", the Node B shall assume that the UE is not using the Primary CPICH for channel estimation. If the RADIO LINK ADDITION REQUEST message does not include the *Primary CPICH Usage For Channel Estimation* IE or includes the *Primary CPICH Usage For Channel Estimation* IE and has the value "Primary CPICH may be used", the Node B shall assume that the UE may use the Primary CPICH for channel estimation.]

**Radio Link Handling:**

**Diversity Combination Control:**

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

- If the *Diversity Control Field* IE is set to "May", the Node B shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other - RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

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

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

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in a set of coordinated DCHs.

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

**[FDD – Transmit Diversity]:**

[FDD – If the *Transmit Diversity Indicator* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE and the already known diversity mode.]

**DL Power Control:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RLs for this Node B Communication Context. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE currently configured for the relevant Node B Communication Context and the downlink power control procedure (see subclause 8.3.7).]

[3.84 Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Initial DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the initial CCTrCH DL power, otherwise the initial CCTrCH DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included (even if *CCTrCH Initial DL Transmission Power* IEs are included), the Node B shall use any transmission power level currently used on already existing CCTrCHs for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 4.2.3.4).]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall determine the initial DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Initial DL Transmission Power* IE is included in the *DL Timeslot Information LCR* IE, then the Node B shall use that power for the initial DL power and ignore the *DL Time*

*Slot ISCP info LCR*, otherwise the initial DL power is the *Initial DL Transmission Power* IE included in the *RL Information* IE and if *DL Time Slot ISCP info LCR* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specifiedin [21], it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged. The Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the CCTrCH when starting transmission until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RL/timeslots for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[21], subclause 5.1.2.4).]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH of the RL. If no *Maximum DL Power* IE is included, any Maximum DL power stored for already existing RLs for this Node B Communication Contextshall be applied. During compressed mode, the $\delta P_{curr}$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH of the RL. If no *Minimum DL Power* IE is included, any Minimum DL power stored for already existing RLs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Maximum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the maximum CCTrCH DL power, otherwise the maximum CCTrCH DL power is the *Maximum DL Power* IE included in the *RL Information* IE. If no *Maximum DL Power* IE is included (even if *CCTrCH Maximum DL Transmission Power* IEs are included), any maximum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[3.84 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum CCTrCH DL power for each DCH type CCTrCH by the following rule: If the *CCTrCH Minimum DL Transmission Power* IE is included for that CCTrCH, then the Node B shall use that power for the minimum CCTrCH DL power, otherwise the minimum CCTrCH DL power is the *Minimum DL Power* IE included in the *RL Information* IE. If no *Minimum DL Power* IE is included (even if *CCTrCH Minimum DL Transmission Power* IEs are included), any minimum DL power stored for already existing DCH type CCTrCHs for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall determine the maximum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Maximum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the maximum DL power, otherwise the maximum DL power is the *Maximum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a higher power on any applicable DL DPCH. If no *Maximum DL Power* IE is included, any maximum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[1.28 Mcps TDD - If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall determine the minimum DL power for each timeslot within a DCH type CCTrCH by the following rule: If the *Minimum DL Power* IE is included in the *DL Timeslot Information LCR* IE for that timeslot, then the Node B shall use that power for the minimum DL power, otherwise the minimum DL power is the *Minimum DL Power* IE included in the *RL Information* IE. The Node B shall store this value and not transmit with a lower power on any applicable DL DPCH. If no *Minimum DL Power* IE is included, any minimum DL power stored for already existing RL/timeslots for this Node B Communication Context shall be applied.]

[3.84Mcps TDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the power balancing is active with the Power Balancing Adjustment Type of the Node B Communication Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the Node B shall activate the power balancing and use the *DL Reference Power* IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.7. If the Node B starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e. $P_{init}$ shall be set to the power level indicated by the *Initial DL Transmission Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on power level of existing RLs.]

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

**[1.28Mcps TDD – Uplink Synchronisation Parameters LCR]:**

[1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

**General:**

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

[FDD – If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE, the Node B shall activate SSDT, if supported, for the concerned new RL, with the indicated SSDT cell identity used for that RL.]

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

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

/* partly omitted */

## 8.3.2 Synchronised Radio Link Reconfiguration Preparation

### 8.3.2.2 Successful Operation

/* partly omitted */

**Signalling bearer rearrangement:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Signalling Bearer Request Indicator* IE the Node B shall, if supported , allocate a new Communication Control Port for the control of the Node B Communication Context and include the *Target Communication Control Port ID* IE in the RADIO LINK RECONFIGURATION READY message.

**HS-DSCH Addition/Modification/Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH Information To Add* IE or *HS-DSCH Information To Modify* IE or *HS-DSCH Information To Delete* IE, then the Node B shall use this information to add/modify/delete the indicated HS-DSCH channel to/from the radio link when the radio link on which the HS-PDSCH is mapped is in the Node B. Otherwise, the Node B shall update the configuration of the HS-DSCH according to the received *HS-DSCH Information To Modify*, *HS-DSCH Information To Add* or *HS-DSCH Information to Delete* IEs. Node B shall store the latest HS-DSCH configuration until the Node B Communication Context is deleted.

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

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

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

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

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

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-PDSCH RL ID* IE, then the Node B shall configure the HS-PDSCH in the radio link indicated by this IE, while removing any existing HS-PDSCH resources from other radio links associated with the Node B Communication Context.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH-RNTI* IE, then the Node B shall use the HS-DSCH-RNTI for the Node B Communication Context.

If the new configuration does not include a HS-DSCH, the HS-DSCH-RNTI, if existing in the Node B Communication Context, shall be deleted from the Node B Communication Context.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH Information To Delet*e IE requesting the deletion of certain HS-DSCH resources for the Node B Communication Context, the Node B shall remove the indicated HS-DSCH in the new configuration.

The Node B shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for each MAC-d flow, if the Node B allows the CRNC to start transmission of MAC-d PDUs before the Node B has allocated capacity on user plane as described in [24].

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

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Measurement Power Offset* IE in the *HS-DSCH Information To Add* IE or the *HS-DSCH Information To Modify* IE, then the Node B shall use the measurement power offset as described in [10] subclause 6A.2.]

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

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

**[FDD - Phase Reference Handling]:**

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Primary CPICH Usage For Channel Estimation* IE, the Node B shall assume that Primary CPICH usage for channel estimation information has been reconfigured.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Secondary CPICH Information Change* IE, the Node B shall assume that Secondary CPICH usage for channel estimation information has been reconfigured.]

**General**

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

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

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel or HS-DSCH MAC-d flow being added or any Transport Channel or HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

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

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

#### 8.3.2.4 Abnormal Conditions

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

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

[FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE" and SSDT is not active in the current configuration, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed if the *UL DPCH Information* IE does not include the *SSDT Cell Identity Length* IE. In this case, it shall respond with a RADIO LINK RECONFIGURATION FAILURE message.]

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

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

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

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Length Of TFCI2* IE but the *TFCI Signalling Option* IE is set to "Normal", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length Of TFCI2* IE but the *Split Type* IE is set to "Logical", then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

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

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

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message is to modify UE channel estimation information for an existing RL and the modification is not allowed according to [10] subclause 4.3.2.1, the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

## 8.3.8 Dedicated Measurement Initiation

### 8.3.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on dedicated resources in a Node B.

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

### 8.3.8.2 Successful Operation

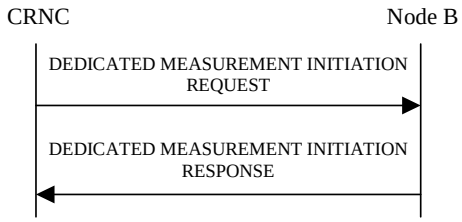


**Figure 38: Dedicated Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the DEDICATED MEASUREMENT INITIATION REQUEST message. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on "All NBCC".

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD, 3.84Mcps TDD or 1.28Mcps TDD) for which the concerned measurement is specified in [4] and [5].

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

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

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

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

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

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

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

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

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

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

[FDD – If the *Number Of Reported Cell Portion* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the value shall be used to determine how many *Cell Portion ID* IEs and *SIR Value* IEs shall be included in *Best Cell Portions* IE in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT RESPONSE message.]

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

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the Node B shall return the result of the measurement immediately. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report frequency. If the *CFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

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

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as

terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

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

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

$F_n$ is the updated filtered measurement result

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

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

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

In order to initialise the averaging filter, $F_0$ is set to $M_1$ when the first measurement result from the physical layer measurement is received.

**Response message**
If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the measurement request.

Only in the case where the *Report Characteristics* IE is set to "On Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case, also the *Dedicated Measurement Object* IE shall be included if it was included in the request message. [TDD – In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

In the case where the *Node B Communication Context ID* IE is set to "All NBCC", the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value "All CRNCCC", which is reserved for this purpose.

**Interaction with Reset Procedure:**

If a measurement has been requested with the *Node B Communication Context ID* IE set to "All NBCC", the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.

### 8.3.8.3 Unsuccessful Operation

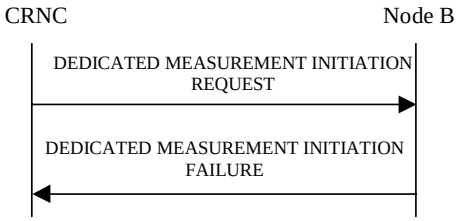


**Figure 39: Dedicated Measurement Initiation procedure: Unsuccessful Operation**

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

In the case where the *Node B Communication Context ID* IE is set to "All NBCC" the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION FAILURE shall be set to the value "All CRNCCC", which is reserved for this purpose.

Typical cause values are as follows:

**Radio Network Layer cause**

- Measurement not supported for the object
- Measurement Temporarily not Available

**Miscellaneous Cause**

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

### 8.3.8.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

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

| Dedicated Measurement Type | Report Characteristics Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | On Demand | Periodic | Event A | Event B | Event C | Event D | Event E | Event F | On Modification |
| SIR | X | X | X | X | X | X | X | X | |
| SIR Error | X | X | X | X | X | X | X | X | |
| Transmitted Code Power | X | X | X | X | X | X | X | X | |
| RSCP | X | X | X | X | X | X | X | X | |
| Rx Timing Deviation | X | X | X | X | | | X | X | |
| Round Trip Time | X | X | X | X | X | X | X | X | |
| Rx Timing Deviation LCR | X | X | X | X | | | X | X | |
| HS-SICH reception quality | X | X | X | X | | | X | X | |
| Best Cell Portions | X | X | | | | | | | |

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

## 9.1.36 RADIO LINK SETUP REQUEST

### 9.1.36.1 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 | | – | |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCCC" shall not be used. | YES | reject |
| **UL DPCH Information** | | *1* | | | YES | reject |
| >UL Scrambling Code | M | | 9.2.2.59 | | – | |
| >Min UL Channelisation Code Length | M | | 9.2.2.22 | | – | |
| >Max Number of UL DPDCHs | C-CodeLen | | 9.2.2.21 | | – | |
| >Puncture Limit | M | | 9.2.1.50 | For UL | – | |
| >TFCS | M | | 9.2.1.58 | For UL | – | |
| >UL DPCCH Slot Format | M | | 9.2.2.57 | | – | |
| > UL SIR Target | M | | UL SIR 9.2.1.67A | | – | |
| >Diversity Mode | M | | 9.2.2.9 | | – | |
| >SSDT Cell ID Length | O | | 9.2.2.45 | | – | |
| >S Field Length | O | | 9.2.2.40 | | – | |
| >DPC Mode | O | | 9.2.2.13C | | YES | reject |
| **DL DPCH Information** | | *1* | | | YES | reject |
| >TFCS | M | | 9.2.1.58 | For DL | – | |
| >DL DPCH Slot Format | M | | 9.2.2.10 | | – | |
| >TFCI Signalling Mode | M | | 9.2.2.50 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.57 | | – | |
| >Multiplexing Position | M | | 9.2.2.23 | | – | |
| >PDSCH RL ID | C-DSCH | | RL ID 9.2.1.53 | | – | |
| >PDSCH Code Mapping | C-DSCH | | 9.2.2.25 | | – | |
| **>Power Offset Information** | | *1* | | | – | |
| >>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.18A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |
| DCH Information | M | | DCH FDD Information 9.2.2.4D | | YES | reject |
| DSCH Information | O | | DSCH FDD Information 9.2.2.13B | | YES | reject |
| **TFCI2 bearer information** | | *0..1* | | | YES | ignore |
| >ToAWS | M | | 9.2.1.61 | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >ToAWE | M | | 9.2.1.60 | | – | |
| >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 |
| **RL Information** | | *1..<maxnoofRLs>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |
| >C-ID | M | | 9.2.1.9 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Chip Offset | M | | 9.2.2.2 | | – | |
| >Propagation Delay | O | | 9.2.2.35 | | – | |
| >Diversity Control Field | C-NotFirstRL | | 9.2.1.25 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >Initial DL Transmission Power | M | | DL Power 9.2.1.21 | Initial power on DPCH | – | |
| >Maximum DL Power | M | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | – | |
| >Minimum DL Power | M | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | – | |
| >SSDT Cell Identity | O | | 9.2.2.44 | | – | |
| >Transmit Diversity Indicator | C-Diversity mode | | 9.2.2.53 | | – | |
| >SSDT Cell Identity For EDSCHPC | C-EDSCHPC | | 9.2.2.44A | | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.24C | | YES | reject |
| >Qth Parameter | O | | 9.2.2.36A | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.x | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| Active Pattern Sequence Information | O | | 9.2.2.A | | YES | reject |
| DSCH Common Information | O | | DSCH FDD Common Information 9.2.2.13D | | YES | ignore |
| DL Power Balancing Information | O | | 9.2.2.12B | | YES | ignore |
| HS-DSCH Information | O | | HS-DSCH FDD Information 9.2.2.18D | | YES | reject |
| HS-DSCH-RNTI | C-InfoHSDSCH | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | C-InfoHSDS | | RL ID 9.2.1.53 | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| | CH | | | | | |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if *Min UL Channelisation Code Length* IE equals to 4. |
| NotFirstRL | The IE shall be present if the RL is not the first one in the *RL Information* IE. |
| DSCH | The IE shall be present if the *DSCH Information* IE is present. |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not set to "none". |
| EDSCHPC | The IE shall be present if *Enhanced DSCH PC* IE is present in the *DSCH Common Information* IE. |
| InfoHSDSCH | The IE shall be present if *HS-DSCH Information* IE is present. |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.39 RADIO LINK ADDITION REQUEST

### 9.1.39.1 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 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC" shall not be used. | YES | reject |
| Compressed Mode Deactivation Flag | O | | 9.2.2.3A | | YES | reject |
| **RL Information** | | *1..<maxnoofRLs-1>* | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |
| >C-ID | M | | 9.2.1.9 | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Chip Offset | M | | 9.2.2.2 | | – | |
| >Diversity Control Field | M | | 9.2.1.25 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >Initial DL Transmission Power | O | | DL Power 9.2.1.21 | Initial power on DPCH | – | |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | – | |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | – | |
| >SSDT Cell Identity | O | | 9.2.2.44 | | – | |
| >Transmit Diversity Indicator | O | | 9.2.2.53 | | – | |
| >DL Reference Power | O | | DL power 9.2.1.21 | Power on DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >Delayed Activation | O | | 9.2.1.24C | | YES | reject |
| >Qth Parameter | O | | 9.2.2.36A | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.x | | YES | ignore |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of RLs for one UE |

## 9.1.42 RADIO LINK RECONFIGURATION PREPARE

### 9.1.42.1 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 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC" shall not be used. | YES | reject |
| **UL DPCH Information** | | *0..1* | | | YES | reject |
| >UL Scrambling Code | O | | 9.2.2.59 | | – | |
| >UL SIR Target | O | | UL SIR 9.2.1.67A | | – | |
| >Min UL Channelistion Code Length | O | | 9.2.2.22 | | – | |
| >Max Number of UL DPDCHs | C-CodeLen | | 9.2.2.21 | | – | |
| >Puncture Limit | O | | 9.2.1.50 | For UL | – | |
| >TFCS | O | | 9.2.1.58 | | – | |
| >UL DPCCH Slot Format | O | | 9.2.2.57 | | – | |
| >Diversity Mode | O | | 9.2.2.9 | | – | |
| >SSDT Cell Identity Length | O | | 9.2.2.45 | | – | |
| >S-Field Length | O | | 9.2.2.40 | | – | |
| **DL DPCH Information** | | *0..1* | | | YES | reject |
| >TFCS | O | | 9.2.1.58 | | – | |
| >DL DPCH Slot Format | O | | 9.2.2.10 | | – | |
| >TFCI Signalling Mode | O | | 9.2.2.50 | | – | |
| >TFCI Presence | C-SlotFormat | | 9.2.1.57 | | – | |
| >Multiplexing Position | O | | 9.2.2.23 | | – | |
| >PDSCH Code Mapping | O | | 9.2.2.25 | | – | |
| >PDSCH RL ID | O | | RL ID 9.2.1.53 | | – | |
| >Limited Power Increase | O | | 9.2.2.18A | | – | |
| DCHs To Modify | O | | DCHs FDD To Modify 9.2.2.4E | | YES | reject |
| DCHs To Add | O | | DCH FDD Information 9.2.2.4D | | YES | reject |
| **DCHs To Delete** | | *0..<maxnoofDCHs>* | | | GLOBAL | reject |
| >DCH ID | M | | 9.2.1.20 | | – | |
| **DSCH To Modify** | | *0..<maxnoofDSCHs>* | | | EACH | reject |
| >DSCH ID | M | | 9.2.1.27 | | – | |
| >Transport Format Set | O | | 9.2.1.59 | For the DL. | – | |
| >Allocation/Retention Priority | O | | 9.2.1.1A | | – | |
| >Frame Handling Priority | O | | 9.2.1.30 | | – | |
| >ToAWS | O | | 9.2.1.61 | | – | |
| >ToAWE | O | | 9.2.1.60 | | – | |
| >Transport Bearer Request Indicator | M | | 9.2.1.62A | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| >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 |
| DSCH To Add | O | | DSCH FDD Information 9.2.2.13B | | YES | reject |
| **DSCH To Delete** | | *0..<maxnoofDSCHs>* | | | EACH | reject |
| >DSCH ID | M | | 9.2.1.27 | | – | |
| **TFCI2 Bearer Information** | | *0..1* | | | YES | reject |
| **>**CHOICE *TFCI2 Bearer Action* | M | | | | – | |
| *>>Add or modify* | | | | | – | |
| >>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>ToAWE | M | | 9.2.1.60 | | – | |
| >>> TFCI2 Bearer Request Indicator | O | | 9.2.1.56C | | YES | reject |
| >>>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 |
| *>>Delete* | | | NULL | | – | |
| **RL Information** | | *0..<maxnoofRLs>* | | | EACH | reject |
| >RL ID | M | | 9.2.1.53 | | – | |
| >DL Code Information | O | | FDD DL Code Information 9.2.2.14A | | – | |
| >Maximum DL Power | O | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | – | |
| >Minimum DL Power | O | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | – | |
| >SSDT Indication | O | | 9.2.2.47 | | – | |
| >SSDT Cell Identity | C-SSDTIndON | | 9.2.2.44 | | – | |
| >Transmit Diversity Indicator | CDiversity mode | | 9.2.2.53 | | – | |
| >SSDT Cell Identity For EDSCHPC | C-EDSCHPC | | 9.2.2.44A | | YES | ignore |
| >DL Reference Power | O | | DL Power 9.2.1.21 | Power on DPCH | YES | ignore |
| >RL Specific DCH Information | O | | 9.2.1.53G | | YES | ignore |
| >DL DPCH Timing Adjustment | O | | 9.2.2.10A | Required RL Timing Adjustment | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| >Qth Parameter | O | | 9.2.2.36A | | YES | ignore |
| >Primary CPICH Usage For Channel Estimation | O | | 9.2.2.x | | YES | ignore |
| >Secondary CPICH Information Change | O | | 9.2.2.x5 | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| DSCH Common Information | O | | DSCH FDD Common Information 9.2.2.13D | | YES | ignore |
| Signalling Bearer Request Indicator | O | | 9.2.1.55A | | YES | reject |
| HS-DSCH Information To Modify | O | | 9.2.1.31H | | YES | reject |
| HS-DSCH Information To Add | O | | HS-DSCH FDD Information 9.2.2.18D | | YES | reject |
| **HS-DSCH Information To Delete** | | *0..<maxnoofMACdFlows>* | | | GLOBAL | reject |
| >HS-DSCH MAC-D Flow ID | M | | 9.2.1.31I | | – | |
| HS-DSCH-RNTI | O | | 9.2.1.31J | | YES | reject |
| HS-PDSCH RL ID | O | | RL ID 9.2.1.53 | | YES | reject |

| Condition | Explanation |
|---|---|
| SSDTIndON | The IE shall be present if the *SSDT Indication* IE is set to "SSDT Active in the UE". |
| CodeLen | The IE shall be present if the *Min UL Channelisation Code Length* IE is equals to 4. |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if the *Diversity Mode* IE is present in the *UL DPCH Information* IEand is not set to "none". |
| EDSCHPC | The IE shall be present if the *Enhanced DSCH PC* IE is present in the *DSCH Common Information* IE. |

| Range Bound | Explanation |
|---|---|
| *maxnoofDCHs* | Maximum number of DCHs for a UE |
| *maxnoofDSCHs* | Maximum number of DSCHs for a UE |
| *maxnoofRLs* | Maximum number of RLs for a UE |
| *maxnoofMACdFlows* | Maximum number of MAC-d Flows |

## 9.1.52 DEDICATED MEASUREMENT INITIATION REQUEST

| 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 | | – | |
| Node B Communication Context ID | M | | 9.2.1.48 | The reserved value "All NBCC" shall not be used when the Report characteristics type is set to "On Demand". | YES | reject |
| Measurement ID | M | | 9.2.1.42 | | YES | reject |
| CHOICE *Dedicated Measurement Object Type* | M | | | | YES | reject |
| *>RL* | | | | | – | |
| **>>RL Information** | | *1..<maxnoofRLs>* | | | EACH | reject |
| >>>RL ID | M | | 9.2.1.53 | | – | |
| >>>DPCH ID | O | | 9.2.3.5 | TDD only | – | |
| **>>>PUSCH Information** | | *0..<maxnoofPUSCHs>* | | TDD only | GLOBAL | reject |
| >>>>PUSCH ID | M | | 9.2.3.12 | | – | |
| **>>>HS-SICH Information** | | *0..<maxnoofHSSICHs>* | | TDD only | GLOBAL | reject |
| >>>>HS-SICH ID | M | | 9.2.3.5Gb | | – | |
| *>RLS* | | | | FDD only | – | |
| **>>RL Set Information** | | *1..<maxnoofRLSets>* | | | – | |
| >>>RL Set ID | M | | 9.2.2.39 | | – | |
| *>ALL RL* | | | NULL | | – | |
| *>ALL RLS* | | | NULL | FDD only | – | |
| Dedicated Measurement Type | M | | 9.2.1.23 | | YES | reject |
| Measurement Filter Coefficient | O | | 9.2.1.41 | | YES | reject |
| Report Characteristics | M | | 9.2.1.51 | | YES | reject |
| CFN Reporting Indicator | M | | FN Reporting Indicator 9.2.1.29B | | YES | reject |
| CFN | O | | 9.2.1.7 | | YES | reject |
| Number Of Reported Cell Portion | C-BestCellPortionsMeas | | 9.2.2.x4 | FDD only | YES | reject |

| Condition | Explanation |
|---|---|
| BestCellPortionsMeas | The IE shall be present if the *Dedicated Measurement Type* IE is set to "Best Cell Portions". |

| Range Bound | Explanation |
|---|---|
| *maxnoofRLs* | Maximum number of individual RLs a measurement can be started on |
| *maxnoofPUSCHs* | Maximum number of PUSCHs per RL a measurement can be started on |
| *maxnoofRLSets* | Maximum number of individual RL Sets a measurement can be started on |
| *maxnoofHSSICHs* | Maximum number of HSSICHs per RL a measurement can be started on |

### 9.2.1.23 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Dedicated Measurement Type | | | ENUMERATED ( SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time, …, Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH reception quality, Best Cell Portions) | "RSCP" and "HS-SICH reception quality " are used by TDD only. "Rx Timing Deviation" is used by 3.84Mcps TDD only. "Rx Timing Deviation LCR", "Angle Of Arrival LCR" are used by 1.28Mcps TDD only. "Round Trip Time", "SIR Error" are used by FDD only. "Best Cell Portions" is used by FDD only. |

Note: For definitions of the measurement types refer to [4] and [5].

### 9.2.1.24 Dedicated Measurement Value

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

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| CHOICE *Dedicated Measurement Value* | | | | | – | |
| *>SIR Value* | | | | | – | |
| >>SIR Value | M | | INTEGER (0..63) | According to mapping in [22] and [23] | – | |
| *>SIR Error Value* | | | | FDD only | – | |
| >>SIR Error Value | M | | INTEGER (0..125) | According to mapping in [22] | – | |
| *>Transmitted Code Power Value* | | | | | – | |
| >>Transmitted Code Power Value | M | | INTEGER (0..127) | According to mapping in [22] and [23]. Values 0 to 9 and 123 to 127 shall not be used. | – | |
| *>RSCP* | | | | TDD only | – | |
| >>RSCP | M | | INTEGER (0..127) | According to mapping in [23] | – | |
| *>Rx Timing Deviation Value* | | | | Applicable to 3.84Mcps TDD only | – | |
| >>Rx Timing Deviation | M | | INTEGER (0..8191) | According to mapping in [23] | – | |
| *>Round Trip Time* | | | | FDD only | – | |
| >>Round Trip Time | M | | INTEGER (0..32767) | According to mapping in [22] | – | |
| *>Additional Dedicated Measurement Values* | | | | | – | |
| *>>Rx Timing Deviation Value LCR* | | | | Applicable to 1.28Mcps TDD only | – | |
| >>>Rx Timing Deviation LCR | M | | INTEGER (0..511) | According to mapping in [23] | YES | reject |
| *>>Angle Of Arrival Value LCR* | | | | Applicable to 1.28Mcps TDD only | – | |
| **>>>AOA Value LCR** | | *1* | | | YES | reject |
| >>>>AOA LCR | M | | INTEGER (0..719) | According to mapping in [23] | – | |
| >>>AOA LCR Accuracy Class | M | | ENUMERATED ( A, B, C, D, E, F, G, H,...) | According to mapping in [23] | – | |
| *>>HS-SICH reception quality* | | | | Applicable to TDD only | – | |
| **>>>HS-SICH reception quality Value** | | *1* | | | YES | reject |
| >>>>Failed HS-SICH | M | | INTEGER (0..20) | According to mapping in [23] | – | |
| >>>>Missed HS-SICH | M | | INTEGER (0..20) | According to mapping in [23] | – | |
| >>>>Total HS-SICH | M | | INTEGER (0..20) | According to mapping in [23] | – | |
| *>>Best Cell Portions* | | | | FDD only | YES | reject |
| >>>Best Cell Portions | M | | 9.2.2.xz | | – | |

### 9.2.2.xz Best Cell Portions

*Best Cell Portions* IE indicates the best received cell portions and their SIR values when Cell Portions are defined in the cell.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| **Best Cell Portions** | | *1..<maxnoofBestCellPortions>* | | **DCH Information Response** |
| >Cell Portion ID | M | | 9.2.2.xx | |
| >SIR Value | M | | INTEGER (0..63) | According to mapping in [22] and [23] |

| Range Bound | Explanation |
|---|---|
| *maxnoofBestCellPortions* | Maximum number of reported Best Received Cell Portions |

### 9.2.2.xx Cell Portion ID

Cell Portion ID is the unique identifier for a cell portion within a cell. See [4].

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Cell Portion ID | | | INTEGER (0..63,…) | |

### 9.2.2.x4 Number Of Reported Cell Portion

Number of Reported Cell Portion indicates the number of Best Cell Portions values which shall be included in the measurement report.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Number Of Reported Cell Portion | | | INTEGER (1..64,…) | |

### 9.2.2.x Primary CPICH Usage For Channel Estimation

The *Primary CPICH Usage For Channel Estimation* IE indicates whether the Primary CPICH may be used for channel estimation or not.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| Primary CPICH Usage For Channel Estimation | | | ENUMERATED ( Primary CPICH may be used, Primary CPICH shall not be used) | |

### 9.2.2.x5 Secondary CPICH Information Change

The *Secondary CPICH Information Change* IE indicates modification of information of the Secondary CPICH for channel estimation.

| IE/Group Name | Presence | Range | IE Type and Reference | Semantics Description |
|---|---|---|---|---|
| CHOICE *Secondary CPICH Information Change* | | | | |
| *>New Secondary CPICH* | | | | |
| >>Secondary CPICH Information | M | | Common Physical Channel ID 9.2.1.13 | |
| *>Secondary CPICH Shall Not Be Used* | | | NULL | |

## 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,
    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,
    End-Of-Audit-Sequence-Indicator,
    EnhancedDSCHPC,
    EnhancedDSCHPCCounter,
    EnhancedDSCHPCIndicator,
    EnhancedDSCHPCWnd,
    EnhancedDSCHPowerOffset,
    FDD-DL-ChannelisationCodeNumber,
    FDD-DL-CodeInformation,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FNReportingIndicator,
    FPACH-Power,
    FrameAdjustmentValue,
    FrameHandlingPriority,
    FrameOffset,
    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,
    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,
    MaxPRACH-MidambleShifts,
    MeasurementFilterCoefficient,
    MeasurementID,
    MidambleAllocationMode,
    MidambleShiftAndBurstType,
    MidambleShiftLCR,
    MinimumDL-PowerCapability,
    MinSpreadingFactor,
    MinUL-ChannelisationCodeLength,
```

```
    MultiplexingPosition,
    NEOT,
    NCyclesPerSFNperiod,
    NFmax,
    NRepetitionsPerCyclePeriod,
    N-INSYNC-IND,
    N-OUTSYNC-IND,
    NeighbouringCellMeasurementInformation,
    NeighbouringFDDCellMeasurementInformation,
    NeighbouringTDDCellMeasurementInformation,
    NodeB-CommunicationContextID,
    NumberOfReportedCellPortion,
    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,
    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,
    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-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-MACdFlow-ID,
    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
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-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-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,
```

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    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-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,
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    id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,
    id-DL-DPCH-InformationList-RL-SetupRqstTDD,
    id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
    id-DL-DPCH-Information-RL-ReconfPrepFDD,
    id-DL-DPCH-Information-RL-ReconfRqstFDD,
    id-DL-DPCH-Information-RL-SetupRqstFDD,
    id-DL-DPCH-TimingAdjustment,
    id-DL-PowerBalancing-Information,
    id-DL-PowerBalancing-ActivationIndicator,
    id-DL-ReferencePowerInformationItem-DL-PC-Rqst,
    id-DL-PowerBalancing-UpdatedIndicator,
    id-DLReferencePower,
    id-DLReferencePowerList-DL-PC-Rqst,
    id-DL-TPC-Pattern01Count,
    id-DPC-Mode,
    id-DPCHConstant,
    id-DSCH-AddItem-RL-ReconfPrepFDD,
    id-DSCHs-to-Add-FDD,
    id-DSCH-DeleteItem-RL-ReconfPrepFDD,
    id-DSCH-DeleteList-RL-ReconfPrepFDD,
    id-DSCHs-to-Add-TDD,
    id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
    id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
    id-DSCH-InformationResponse,
    id-DSCH-FDD-Information,
    id-DSCH-FDD-Common-Information,
    id-DSCH-TDD-Information,
    id-DSCH-ModifyItem-RL-ReconfPrepFDD,
    id-DSCH-ModifyList-RL-ReconfPrepFDD,
    id-End-Of-Audit-Sequence-Indicator,
    id-EnhancedDSCHPC,
    id-EnhancedDSCHPCIndicator,
    id-FACH-Information,
    id-FACH-ParametersList-CTCH-ReconfRqstTDD,
    id-FACH-ParametersList-CTCH-SetupRsp,
    id-FACH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-FACH-ParametersListIE-CTCH-SetupRqstFDD,
    id-FACH-ParametersListIE-CTCH-SetupRqstTDD,
    id-IndicationType-ResourceStatusInd,
    id-InformationExchangeID,
    id-InformationExchangeObjectType-InfEx-Rqst,
    id-InformationExchangeObjectType-InfEx-Rsp,
    id-InformationExchangeObjectType-InfEx-Rprt,
    id-InformationReportCharacteristics,
    id-InformationType,
    id-InitDL-Power,
    id-InnerLoopDLPCStatus,
    id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD,
    id-IPDLParameter-Information-Cell-ReconfRqstFDD,
    id-IPDLParameter-Information-Cell-SetupRqstFDD,
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    id-IPDLParameter-Information-Cell-ReconfRqstTDD,
    id-IPDLParameter-Information-Cell-SetupRqstTDD,
    id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD,
    id-Limited-power-increase-information-Cell-SetupRqstFDD,
    id-Local-Cell-ID,
    id-Local-Cell-Group-InformationItem-AuditRsp,
    id-Local-Cell-Group-InformationItem-ResourceStatusInd,
    id-Local-Cell-Group-InformationItem2-ResourceStatusInd,
    id-Local-Cell-Group-InformationList-AuditRsp,
    id-Local-Cell-InformationItem-AuditRsp,
    id-Local-Cell-InformationItem-ResourceStatusInd,
    id-Local-Cell-InformationItem2-ResourceStatusInd,
    id-Local-Cell-InformationList-AuditRsp,
    id-AdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MaximumTransmissionPower,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
    id-NCyclesPerSFNperiod,
    id-NeighbouringCellMeasurementInformation,
    id-NodeB-CommunicationContextID,
    id-NRepetitionsPerCyclePeriod,
    id-NumberOfReportedCellPortion,
    id-P-CCPCH-Information,
    id-P-CPICH-Information,
    id-P-SCH-Information,
    id-PCCPCH-Information-Cell-ReconfRqstTDD,
    id-PCCPCH-Information-Cell-SetupRqstTDD,
    id-PCH-Parameters-CTCH-ReconfRqstTDD,
    id-PCH-Parameters-CTCH-SetupRsp,
    id-PCH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstTDD,
    id-PCH-Information,
    id-PCPCH-Information,
    id-PICH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,
    id-PDSCH-Information-Cell-SetupRqstFDD,
    id-PDSCH-Information-Cell-ReconfRqstFDD,
    id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,
    id-PDSCH-RL-ID,
    id-PDSCHSets-AddList-PSCH-ReconfRqst,
    id-PDSCHSets-DeleteList-PSCH-ReconfRqst,
    id-PDSCHSets-ModifyList-PSCH-ReconfRqst,
    id-PICH-Information,
    id-PICH-Parameters-CTCH-ReconfRqstTDD,
    id-PICH-ParametersItem-CTCH-SetupRqstTDD,
    id-PowerAdjustmentType,
    id-Power-Local-Cell-Group-InformationItem-AuditRsp,
    id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationList-AuditRsp,
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    id-Power-Local-Cell-Group-InformationList-ResourceStatusInd,
    id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd,
    id-Power-Local-Cell-Group-ID,
    id-PRACH-Information,
    id-PRACHConstant,
    id-PRACH-ParametersItem-CTCH-SetupRqstTDD,
    id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,
    id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,
    id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,
    id-PrimaryCPICH-Information-Cell-SetupRqstFDD,
    id-Primary-CPICH-Usage-for-Channel-Estimation,
    id-PrimarySCH-Information-Cell-ReconfRqstFDD,
    id-PrimarySCH-Information-Cell-SetupRqstFDD,
    id-PrimaryScramblingCode,
    id-SCH-Information-Cell-ReconfRqstTDD,
    id-SCH-Information-Cell-SetupRqstTDD,
    id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,
    id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCHConstant,
    id-PUSCHSets-AddList-PSCH-ReconfRqst,
    id-PUSCHSets-DeleteList-PSCH-ReconfRqst,
    id-PUSCHSets-ModifyList-PSCH-ReconfRqst,
    id-Qth-Parameter,
    id-RACH-Information,
    id-RACH-Parameters-CTCH-SetupRsp,
    id-RACH-ParametersItem-CTCH-SetupRqstFDD,
    id-RACH-ParameterItem-CTCH-SetupRqstTDD,
    id-ReferenceClockAvailability,
    id-ReferenceSFNoffset,
    id-ReportCharacteristics,
    id-Reporting-Object-RL-FailureInd,
    id-Reporting-Object-RL-RestoreInd,
    id-ResetIndicator,
    id-RL-InformationItem-DM-Rprt,
    id-RL-InformationItem-DM-Rqst,
    id-RL-InformationItem-DM-Rsp,
    id-RL-InformationItem-RL-AdditionRqstFDD,
    id-RL-informationItem-RL-DeletionRqst,
    id-RL-InformationItem-RL-FailureInd,
    id-RL-InformationItem-RL-PreemptRequiredInd,
    id-RL-InformationItem-RL-ReconfPrepFDD,
    id-RL-InformationItem-RL-ReconfRqstFDD,
    id-RL-InformationItem-RL-RestoreInd,
    id-RL-InformationItem-RL-SetupRqstFDD,
    id-RL-InformationList-RL-AdditionRqstFDD,
    id-RL-informationList-RL-DeletionRqst,
    id-RL-InformationList-RL-PreemptRequiredInd,
    id-RL-InformationList-RL-ReconfPrepFDD,
    id-RL-InformationList-RL-ReconfRqstFDD,
    id-RL-InformationList-RL-SetupRqstFDD,
    id-RL-InformationResponseItem-RL-AdditionRspFDD,
    id-RL-InformationResponseItem-RL-ReconfReady,
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    id-RL-InformationResponseItem-RL-ReconfRsp,
    id-RL-InformationResponseItem-RL-SetupRspFDD,
    id-RL-InformationResponseList-RL-AdditionRspFDD,
    id-RL-InformationResponseList-RL-ReconfReady,
    id-RL-InformationResponseList-RL-ReconfRsp,
    id-RL-InformationResponseList-RL-SetupRspFDD,
    id-RL-InformationResponse-RL-AdditionRspTDD,
    id-RL-InformationResponse-RL-SetupRspTDD,
    id-RL-Information-RL-AdditionRqstTDD,
    id-RL-Information-RL-ReconfRqstTDD,
    id-RL-Information-RL-ReconfPrepTDD,
    id-RL-Information-RL-SetupRqstTDD,
    id-RL-ReconfigurationFailureItem-RL-ReconfFailure,
    id-RL-Set-InformationItem-DM-Rprt,
    id-RL-Set-InformationItem-DM-Rsp,
    id-RL-Set-InformationItem-RL-FailureInd,
    id-RL-Set-InformationItem-RL-RestoreInd,
    id-RL-Specific-DCH-Info,
    id-S-CCPCH-Information,
    id-S-CPICH-Information,
    id-SCH-Information,
    id-S-SCH-Information,
    id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,
    id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,
    id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,
    id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,
    id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,
    id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,
    id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,
    id-Secondary-CPICH-Information-Change,
    id-SecondarySCH-Information-Cell-ReconfRqstFDD,
    id-SecondarySCH-Information-Cell-SetupRqstFDD,
    id-SegmentInformationListIE-SystemInfoUpdate,
    id-SFN,
    id-SFNReportingIndicator,
    id-ShutdownTimer,
    id-SignallingBearerRequestIndicator,
    id-SSDT-CellIDforEDSCHPC,
    id-Start-Of-Audit-Sequence-Indicator,
    id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,
    id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,
    id-Synchronisation-Configuration-Cell-ReconfRqst,
    id-Synchronisation-Configuration-Cell-SetupRqst,
    id-SyncCase,
    id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,
    id-SyncFrameNumber,
    id-SynchronisationReportType,
    id-SynchronisationReportCharacteristics,
    id-SyncReportType-CellSyncReprtTDD,
    id-T-Cell,
    id-TargetCommunicationControlPortID,
    id-TFCI2-Bearer-Information-RL-SetupRqstFDD,
    id-TFCI2-BearerInformationResponse,
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    id-TFCI2BearerRequestIndicator,
    id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD,
    id-Transmission-Gap-Pattern-Sequence-Information,
    id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,
    id-TimeSlotConfigurationList-Cell-SetupRqstTDD,
    id-timeslotInfo-CellSyncInitiationRqstTDD,
    id-TimeslotISCPInfo,
    id-TimingAdvanceApplied,
    id-TransmissionDiversityApplied,
    id-transportlayeraddress,
    id-UARFCNforNt,
    id-UARFCNforNd,
    id-UARFCNforNu,
    id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
    id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
    id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
    id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationList-RL-SetupRqstTDD,
    id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-Information-RL-ReconfPrepFDD,
    id-UL-DPCH-Information-RL-ReconfRqstFDD,
    id-UL-DPCH-Information-RL-SetupRqstFDD,
    id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD,
    id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD,
    id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD,
    id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,
    id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,
    id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,
    id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,
    id-USCH-Information-Add,
    id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
    id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
    id-USCH-InformationResponse,
    id-USCH-Information,
    id-USCH-RearrangeList-Bearer-RearrangeInd,
    id-DL-DPCH-LCR-Information-RL-SetupRqstTDD,
    id-DwPCH-LCR-Information,
    id-DwPCH-LCR-InformationList-AuditRsp,
    id-DwPCH-LCR-Information-Cell-SetupRqstTDD,
    id-DwPCH-LCR-Information-Cell-ReconfRqstTDD,
    id-DwPCH-LCR-Information-ResourceStatusInd,
    id-maxFACH-Power-LCR-CTCH-SetupRqstTDD,
    id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD,
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    id-FPACH-LCR-Information,
    id-FPACH-LCR-Information-AuditRsp,
    id-FPACH-LCR-InformationList-AuditRsp,
    id-FPACH-LCR-InformationList-ResourceStatusInd,
    id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD,
    id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD,
    id-PCCPCH-LCR-Information-Cell-SetupRqstTDD,
    id-PCH-Power-LCR-CTCH-SetupRqstTDD,
    id-PCH-Power-LCR-CTCH-ReconfRqstTDD,
    id-PICH-LCR-Parameters-CTCH-SetupRqstTDD,
   id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD,
    id-RL-InformationResponse-LCR-RL-SetupRspTDD,
    id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD,
    id-TimeSlot,
    id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD,
    id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD,
    id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD,
    id-TimeSlotLCR-CM-Rqst,
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD,
    id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
    id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
    id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD,
    id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD,
    id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD,
    id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD,
    id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD,
    id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD,
    id-UL-DPCH-LCR-InformationModify-AddList,
    id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD,
    id-UL-SIRTarget,
    id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst,
    id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
    id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst,
    id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
    id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
    id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst,
    id-PUSCH-Info-DM-Rqst,
    id-PUSCH-Info-DM-Rsp,
    id-PUSCH-Info-DM-Rprt,
    id-RL-InformationResponse-LCR-RL-AdditionRspTDD,
    id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD,
    id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD,
    id-HS-PDSCH-HS-SCCH-MaxPower-PSCH-ReconfRqst,
    id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst,
    id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst,
    id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst,
    id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst,
    id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst,
    id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD,
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    id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD,
    id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD,
    id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD,
    id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD,
    id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD,
    id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD,
    id-DwPCH-Power,
    id-AccumulatedClockupdate-CellSyncReprtTDD,
    id-HSDSCH-FDD-Information,
    id-HSDSCH-FDD-Information-Response,
    id-HSDSCH-FDD-Information-to-Add,
    id-HSDSCH-FDD-Information-to-Delete,
    id-HSDSCH-Information-to-Modify,
    id-HSDSCH-RearrangeList-Bearer-RearrangeInd,
    id-HSDSCH-RNTI,
    id-HSDSCH-TDD-Information,
    id-HSDSCH-TDD-Information-Response,
    id-HSDSCH-TDD-Information-Response-LCR,
    id-HSDSCH-TDD-Information-to-Add,
    id-HSDSCH-TDD-Information-to-Delete,
    id-HSPDSCH-RL-ID,
    id-HSSICH-Info-DM-Rprt,
    id-HSSICH-Info-DM-Rqst,
    id-HSSICH-Info-DM-Rsp,
    id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
    id-HSDSCH-FDD-Update-Information,
    id-HSDSCH-TDD-Update-Information,
    id-UL-Synchronisation-Parameters-LCR,
    id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
    id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
    id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD,
    id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD,
    id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD,
    id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
    id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD,
    id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD,
    id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD,
    id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
    id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD,
    id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD,
    id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD,
    id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD,
    id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,

    maxNrOfCCTrCHs,
    maxNrOfCellSyncBursts,
```

```
    maxNrOfCodes,
    maxNrOfCPCHs,
    maxNrOfDCHs,
    maxNrOfDLTSs,
    maxNrOfDLTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDSCHs,
    maxNrOfFACHs,
    maxNrOfRLs,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfRLSets,
    maxNrOfPCPCHs,
    maxNrOfPDSCHs,
    maxNrOfPUSCHs,
    maxNrOfPRACHLCRs,
    maxNrOfPDSCHSets,
    maxNrOfPUSCHSets,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfSCCPCHs,
    maxNrOfSCCPCHLCRs,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfUSCHs,
    maxAPSigNum,
    maxCPCHCell,
    maxFACHCell,
    maxFPACHCell,
    maxNoofLen,
    maxRACHCell,
    maxPCPCHCell,
    maxPRACHCell,
    maxSCCPCHCell,
    maxSCPICHCell,
    maxCellinNodeB,
    maxCCPinNodeB,
    maxCommunicationContext,
    maxLocalCellinNodeB,
    maxNrOfSlotFormatsPRACH,
    maxIB,
    maxIBSEG,
    maxNrOfHSSCCHs,
    maxNrOfHSSICHs,
    maxNrOfHSPDSCHs,
    maxNrOfSyncFramesLCR,
    maxNrOfReceptionsperSyncFrameLCR,
    maxNrOfSyncDLCodesLCR,
    maxNrOfMACdFlows
FROM NBAP-Constants;

    /* partly omitted */
```

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

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

RadioLinkSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY reject              TYPE                    CRNC-CommunicationContextID
            PRESENCE    mandatory   }|
    { ID    id-UL-DPCH-Information-RL-SetupRqstFDD          CRITICALITY reject              TYPE                    UL-DPCH-Information-RL-
SetupRqstFDD            PRESENCE    mandatory   }|
    { ID    id-DL-DPCH-Information-RL-SetupRqstFDD          CRITICALITY reject              TYPE                    DL-DPCH-Information-RL-
SetupRqstFDD            PRESENCE    mandatory   }|
    { ID    id-DCH-FDD-Information          CRITICALITY reject              TYPE    DCH-FDD-Information                 PRESENCE mandatory   }|
    { ID    id-DSCH-FDD-Information         CRITICALITY reject              TYPE    DSCH-FDD-Information              PRESENCE optional }|
    { ID    id-TFCI2-Bearer-Information-RL-SetupRqstFDD     CRITICALITY ignore              TYPE                    TFCI2-Bearer-Information-RL-
SetupRqstFDD    PRESENCE    optional    }|
    { ID    id-RL-InformationList-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 },
    ...
}

RadioLinkSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-FDD-Common-Information                 CRITICALITY ignore  EXTENSION DSCH-FDD-Common-Information                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-HSDSCH-RNTI                            CRITICALITY reject  EXTENSION HSDSCH-RNTI                         PRESENCE conditional }|
    -- The IE shall be present if HS-DSCH Information IE is present
    { ID id-HSPDSCH-RL-ID                          CRITICALITY reject  EXTENSION RL-ID                               PRESENCE conditional },
    -- The IE shall be present if HS-DSCH Information IE is present
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode                       UL-ScramblingCode,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPDCHs                        MaxNrOfUL-DPDCHs        OPTIONAL,
    -- This IE shall be present if Min UL Channelisation Code length IE is set to 4 --
    ul-PunctureLimit                        PunctureLimit,
    tFCS                                    TFCS,
    ul-DPCCH-SlotFormat                     UL-DPCCH-SlotFormat,
    ul-SIR-Target                           UL-SIR,
```

```
    diversityMode                           DiversityMode,
    sSDT-CellID-Length                      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 NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-DPC-Mode         CRITICALITY reject  EXTENSION   DPC-Mode    PRESENCE optional   },
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                                    TFCS,
    dl-DPCH-SlotFormat                      DL-DPCH-SlotFormat,
    tFCI-SignallingMode                     TFCI-SignallingMode,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- this IE shall be present if the DL DPCH slot format IE is set to any of the values from 12 to 16 --
    multiplexingPosition                    MultiplexingPosition,
    pDSCH-RL-ID                             RL-ID           OPTIONAL,
    -- This IE shall be present if the DSCH Information IE is present --
    pDSCH-CodeMapping                       PDSCH-CodeMapping       OPTIONAL,
    -- This IE shall be present if the DSCH Information IE is present --
    powerOffsetInformation                  PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-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 NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

TFCI2-Bearer-Information-RL-SetupRqstFDD ::= SEQUENCE {
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { TFCI2-Bearer-Information-RL-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
TFCI2-Bearer-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                       CRITICALITY ignore      EXTENSION   BindingID                       PRESENCE    optional }|
    { ID id-transportlayeraddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress           PRESENCE    optional },
    ...
}

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

RL-InformationItemIE-RL-SetupRqstFDD NBAP-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 Information IE
    dl-CodeInformation                  FDD-DL-CodeInformation,
    initialDL-transmissionPower         DL-Power,
    maximumDL-power                     DL-Power,
    minimumDL-power                     DL-Power,
    sSDT-Cell-Identity                  SSDT-Cell-Identity          OPTIONAL,
    transmitDiversityIndicator          TransmitDiversityIndicator      OPTIONAL,
    -- This IE shall be present if Diversity Mode IE in UL DPCH Information group is not set to “none”
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationItem-RL-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-Cell-Identity       PRESENCE conditional }|
    -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Common Information IE.
    { 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-Primary-CPICH-Usage-for-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-for-Channel-Estimation     PRESENCE
optional },
    ...
}

    /* partly omitted */

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

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

RadioLinkAdditionRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                 CRITICALITY reject          TYPE    NodeB-CommunicationContextID            PRESENCE
    mandatory   } |
    { ID id-Compressed-Mode-Deactivation-Flag       CRITICALITY reject              TYPE Compressed-Mode-Deactivation-Flag   PRESENCE optional }|
    { ID    id-RL-InformationList-RL-AdditionRqstFDD            CRITICALITY notify          TYPE                    RL-InformationList-RL-
AdditionRqstFDD         PRESENCE    mandatory   },
    ...
}

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

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

RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-AdditionRqstFDD            CRITICALITY     notify          TYPE                RL-InformationItem-RL-
AdditionRqstFDD         PRESENCE    mandatory}
}

RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    c-ID                                    C-ID,
    frameOffset                             FrameOffset,
    chipOffset                              ChipOffset,
    diversityControlField                   DiversityControlField,
    dl-CodeInformation                      FDD-DL-CodeInformation,
    initialDL-TransmissionPower             DL-Power                        OPTIONAL,
    maximumDL-Power                         DL-Power                        OPTIONAL,
    minimumDL-Power                         DL-Power                        OPTIONAL,
    sSDT-CellIdentity                       SSDT-Cell-Identity              OPTIONAL,
    transmitDiversityIndicator              TransmitDiversityIndicator      OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-AdditionRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DLReferencePower    CRITICALITY ignore      EXTENSION   DL-Power        PRESENCE optional}|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info                  PRESENCE    optional }|
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }|
    { ID id-Qth-Parameter   CRITICALITY ignore      EXTENSION   Qth-Parameter       PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-for-Channel-Estimation     PRESENCE
optional },
    ...
}
```

```
    /* partly omitted */

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- **************************************************************

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

RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                 CRITICALITY     reject          TYPE                    NodeB-CommunicationContextID
        PRESENCE    mandatory   } |
    { ID    id-UL-DPCH-Information-RL-ReconfPrepFDD         CRITICALITY     reject          TYPE                    UL-DPCH-Information-RL-
ReconfPrepFDD       PRESENCE    optional    } |
    { ID    id-DL-DPCH-Information-RL-ReconfPrepFDD         CRITICALITY     reject          TYPE                    DL-DPCH-Information-RL-
ReconfPrepFDD       PRESENCE    optional    } |
    { ID    id-FDD-DCHs-to-Modify               CRITICALITY     reject          TYPE    FDD-DCHs-to-Modify              PRESENCE optional } |
    { ID    id-DCHs-to-Add-FDD                  CRITICALITY     reject          TYPE    DCH-FDD-Information             PRESENCE optional } |
    { ID    id-DCH-DeleteList-RL-ReconfPrepFDD              CRITICALITY     reject          TYPE                    DCH-DeleteList-RL-ReconfPrepFDD
            PRESENCE    optional    } |
    { ID    id-DSCH-ModifyList-RL-ReconfPrepFDD             CRITICALITY     reject          TYPE                    DSCH-ModifyList-RL-ReconfPrepFDD
            PRESENCE    optional    } |
    { ID    id-DSCHs-to-Add-FDD             CRITICALITY     reject          TYPE    DSCH-FDD-Information                    PRESENCE optional } |
    { ID    id-DSCH-DeleteList-RL-ReconfPrepFDD             CRITICALITY     reject          TYPE                    DSCH-DeleteList-RL-ReconfPrepFDD
            PRESENCE    optional    } |
    { ID    id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD     CRITICALITY     reject      TYPE                TFCI2-BearerSpecificInformation-
RL-ReconfPrepFDD
    PRESENCE optional } |
    { ID    id-RL-InformationList-RL-ReconfPrepFDD          CRITICALITY     reject          TYPE                    RL-InformationList-RL-
ReconfPrepFDD           PRESENCE    optional    }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY     reject          TYPE Transmission-Gap-Pattern-Sequence-Information
PRESENCE optional },
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-FDD-Common-Information                 CRITICALITY ignore  EXTENSION DSCH-FDD-Common-Information               PRESENCE optional
    }|
    { ID id-SignallingBearerRequestIndicator    CRITICALITY reject  EXTENSION   SignallingBearerRequestIndicator             PRESENCE optional }|
    { ID    id-HSDSCH-Information-to-Modify         CRITICALITY reject      EXTENSION HSDSCH-Information-to-Modify          PRESENCE optional }|
    { ID    id-HSDSCH-FDD-Information-to-Add        CRITICALITY reject      EXTENSION HSDSCH-FDD-Information                PRESENCE optional }|
    { ID    id-HSDSCH-FDD-Information-to-Delete     CRITICALITY reject      EXTENSION HSDSCH-DeleteList-RL-ReconfPrepFDD    PRESENCE optional }|
    { ID    id-HSDSCH-RNTI                          CRITICALITY reject      EXTENSION HSDSCH-RNTI                           PRESENCE optional }|
    { ID    id-HSPDSCH-RL-ID                        CRITICALITY reject      EXTENSION RL-ID                                 PRESENCE optional },
    ...
}
```

```
UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode                       UL-ScramblingCode                   OPTIONAL,
    ul-SIR-Target                           UL-SIR                              OPTIONAL,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength      OPTIONAL,
    maxNrOfUL-DPDCHs                        MaxNrOfUL-DPDCHs                    OPTIONAL,
    -- This IE shall be present if minUL-ChannelisationCodeLength Ie is set to 4
    ul-PunctureLimit                        PunctureLimit                       OPTIONAL,
    tFCS                                    TFCS        OPTIONAL,
    ul-DPCCH-SlotFormat                     UL-DPCCH-SlotFormat                 OPTIONAL,
    diversityMode                           DiversityMode                       OPTIONAL,
    sSDT-CellIDLength                       SSDT-CellID-Length                  OPTIONAL,
    s-FieldLength                           S-FieldLength                       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                                    TFCS                                OPTIONAL,
    dl-DPCH-SlotFormat                      DL-DPCH-SlotFormat                  OPTIONAL,
    tFCI-SignallingMode                     TFCI-SignallingMode                 OPTIONAL,
    tFCI-Presence                           TFCI-Presence                       OPTIONAL,
    -- This IE shall be present if the DL DPCH Slot Format IE is set to any of the values from 12 to 16
    multiplexingPosition                    MultiplexingPosition                OPTIONAL,
    pDSCH-CodeMapping                       PDSCH-CodeMapping                   OPTIONAL,
    pDSCH-RL-ID                             RL-ID                               OPTIONAL,
    limitedPowerIncrease                    LimitedPowerIncrease                OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-ModifyList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Single-Container {{DSCH-ModifyItemIE-RL-ReconfPrepFDD }}

DSCH-ModifyItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
```

```
    { ID    id-DSCH-ModifyItem-RL-ReconfPrepFDD     CRITICALITY reject      TYPE    DSCH-ModifyItem-RL-ReconfPrepFDD  PRESENCE mandatory}
}

DSCH-ModifyItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    dl-TransportFormatSet                       TransportFormatSet          OPTIONAL,
    allocationRetentionPriority                 AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                       FrameHandlingPriority       OPTIONAL,
    toAWS                                       ToAWS                       OPTIONAL,
    toAWE                                       ToAWE                       OPTIONAL,
    transportBearerRequestIndicator             TransportBearerRequestIndicator,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs} }     OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-bindingID                        CRITICALITY ignore      EXTENSION   BindingID                     PRESENCE    optional }|
    { ID    id-transportlayeraddress            CRITICALITY ignore      EXTENSION   TransportLayerAddress            PRESENCE    optional },
    ...
}

DSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Single-Container {{DSCH-DeleteItemIE-RL-ReconfPrepFDD }}

DSCH-DeleteItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-DSCH-DeleteItem-RL-ReconfPrepFDD     CRITICALITY reject      TYPE    DSCH-DeleteItem-RL-ReconfPrepFDD  PRESENCE mandatory}
}

DSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }     OPTIONAL,
    ...
}

DSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD ::= CHOICE {
    addOrModify             AddOrModify-TFCI2-RL-ReconfPrepFDD,
    delete                  NULL
}

AddOrModify-TFCI2-RL-ReconfPrepFDD ::= SEQUENCE {
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { AddOrModify-TFCI2-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

AddOrModify-TFCI2-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TFCI2BearerRequestIndicator     CRITICALITY     reject          EXTENSION   TFCI2BearerRequestIndicator      PRESENCE optional }|
    { ID id-bindingID                       CRITICALITY     ignore          EXTENSION   BindingID                        PRESENCE    optional }|
    { ID id-transportlayeraddress           CRITICALITY     ignore          EXTENSION   TransportLayerAddress            PRESENCE    optional },
```

```
    ...
}

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

RL-InformationItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-ReconfPrepFDD          CRITICALITY     reject          TYPE                    RL-InformationItem-RL-
ReconfPrepFDD       PRESENCE    mandatory}
}

RL-InformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    dl-CodeInformation                  FDD-DL-CodeInformation      OPTIONAL,
    maxDL-Power                             DL-Power                                OPTIONAL,
    minDL-Power                             DL-Power                                OPTIONAL,
    sSDT-Indication                         SSDT-Indication                         OPTIONAL,
    sSDT-Cell-Identity                      SSDT-Cell-Identity                      OPTIONAL,
    -- The IE shall be present if the SSDT Indication IE is set to “SSDT Active in the UE”
    transmitDiversityIndicator              TransmitDiversityIndicator              OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and it is not set to “none”
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfPrepFDD-ExtIEs} }     OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-Cell-Identity       PRESENCE conditional }|
    -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Common Information IE.
    { ID id-DLReferencePower        CRITICALITY ignore  EXTENSION   DL-Power                PRESENCE optional       }|
    { ID id-RL-Specific-DCH-Info        CRITICALITY ignore      EXTENSION   RL-Specific-DCH-Info                    PRESENCE    optional }|
    { ID id-DL-DPCH-TimingAdjustment CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment  PRESENCE optional }|
    { ID id-Qth-Parameter   CRITICALITY ignore      EXTENSION   Qth-Parameter       PRESENCE optional }|
    { ID id-Primary-CPICH-Usage-for-Channel-Estimation      CRITICALITY ignore  EXTENSION   Primary-CPICH-Usage-for-Channel-Estimation     PRESENCE
optional }|
    { ID id-Secondary-CPICH-Information-Change       CRITICALITY ignore  EXTENSION   Secondary-CPICH-Information-Change    PRESENCE optional },
    ...
}

HSDSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepFDD

HSDSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    hsDSCH-MACdFlow-ID                      HSDSCH-MACdFlow-ID,
    iE-Extensions                           ProtocolExtensionContainer { { HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

    /* partly omitted */


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

```
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- **************************************************************

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

DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                 CRITICALITY     reject      TYPE    NodeB-CommunicationContextID         PRESENCE
    mandatory   } |
    { ID    id-MeasurementID                                CRITICALITY     reject      TYPE    MeasurementID                           PRESENCE
    mandatory   } |
    { ID    id-DedicatedMeasurementObjectType-DM-Rqst       CRITICALITY     reject      TYPE    DedicatedMeasurementObjectType-DM-Rqst     PRESENCE
    mandatory   } |
    { ID    id-DedicatedMeasurementType                     CRITICALITY     reject      TYPE    DedicatedMeasurementType             PRESENCE
    mandatory   } |
    { ID    id-MeasurementFilterCoefficient                 CRITICALITY     reject      TYPE    MeasurementFilterCoefficient            PRESENCE
    optional    } |
    { ID    id-ReportCharacteristics                        CRITICALITY     reject      TYPE    ReportCharacteristics                PRESENCE
    mandatory   } |
    { ID    id-CFNReportingIndicator                        CRITICALITY     reject      TYPE    FNReportingIndicator                 PRESENCE
    mandatory   } |
    { ID    id-CFN                                          CRITICALITY     reject      TYPE    CFN                                  PRESENCE
optional    } ,
    ...
}

DedicatedMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID    id-NumberOfReportedCellPortion                  CRITICALITY     reject      TYPE    NumberOfReportedCellPortion          PRESENCE
optional    },
    -- The IE shall be present if the Dedicated Measurement Type IE is set to "Best Cell Portions".
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                          RL-DM-Rqst,
    rLS                         RL-Set-DM-Rqst,         -- for FDD only
    all-RL                      AllRL-DM-Rqst,
    all-RLS                     AllRL-Set-DM-Rqst,      -- for FDD only
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList                  RL-InformationList-DM-Rqst,
    iE-Extensions                       ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } }                    OPTIONAL,
    ...
}

RLItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rqst }}

RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst   CRITICALITY reject TYPE RL-InformationItem-DM-Rqst     PRESENCE mandatory }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
        rL-ID                           RL-ID,
        dPCH-ID                         DPCH-ID             OPTIONAL, -- for TDD only
        iE-Extensions                   ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-ExtIEs } }          OPTIONAL,
        ...
    }

RL-InformationItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PUSCH-Info-DM-Rqst      CRITICALITY reject              EXTENSION   PUSCH-Info-DM-Rqst                    PRESENCE optional}|
    -- TDD only
    { ID id-HSSICH-Info-DM-Rqst     CRITICALITY reject              EXTENSION   HSSICH-Info-DM-Rqst                   PRESENCE optional},
    -- TDD only
    ...
}

PUSCH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst         RL-Set-InformationList-DM-Rqst,
    iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs } }             OPTIONAL,
    ...
}

RL-SetItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst                 ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rqst

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID                       RL-Set-ID,
    iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rqst ::= NULL
```

```
AllRL-Set-DM-Rqst ::= NULL

    /* partly omitted */
```

## 9.3.4 Information Elements Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfRLs,
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxCodeNrComp-1,
    maxHS-PDSCHCodeNrComp-1,
    maxHS-SCCHCodeNrComp-1,
    maxNrOfCellSyncBursts,
    maxNrOfCodeGroups,
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfTFCIGroups,
    maxNrOfTFCI1Combs,
    maxNrOfTFCI2Combs,
    maxNrOfTFCI2Combs-1,
    maxNrOfSF,
    maxTGPS,
    maxNrOfUSCHs,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDPCHLCRs,
    maxNrOfCodes,
    maxNrOfDSCHs,
    maxNrOfDLTSs,
    maxNrOfDLTSLCRs,
    maxNrOfDCHs,
    maxNrOfLevels,
    maxNoGPSItems,
    maxNoSat,
    maxNrOfCellPortionsPerCell,
```

```
    maxNrOfCellPortionsPerCell-1,
    maxNrOfHSSCCHs,
    maxNrOfHSSCCHCodes,
    maxNrOfMACdFlows,
    maxNrOfMACdFlows-1,
    maxNrOfMACdPDUIndexes,
    maxNrOfMACdPDUIndexes-1,
    maxNrOfPriorityQueues,
    maxNrOfPriorityQueues-1,
    maxNrOfHARQProcesses,
    maxNrOfSyncDLCodesLCR,
    maxNrOfSyncFramesLCR,
    maxNrOfContextsOnUeList,

    id-MessageStructure,
    id-ReportCharacteristicsType-OnModification,
    id-Rx-Timing-Deviation-Value-LCR,
    id-SFNSFNMeasurementValueInformation,
    id-SFNSFNMeasurementThresholdInformation,
    id-TUTRANGPSMeasurementValueInformation,
    id-TUTRANGPSMeasurementThresholdInformation,
    id-TypeOfError,
    id-transportlayeraddress,
    id-bindingID,
    id-Angle-Of-Arrival-Value-LCR,
    id-SyncDLCodeIdThreInfoLCR,
    id-neighbouringTDDCellMeasurementInformationLCR,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-Initial-DL-Power-TimeslotLCR-InformationItem,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission,
    id-HS-DSCHRequiredPower,
    id-HS-DSCHProvidedBitRate,
    id-HS-DSCHRequiredPowerValue,
    id-HS-DSCHProvidedBitRateValue,
    id-Best-Cell-Portions-Value
FROM NBAP-Constants

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

    NBAP-PROTOCOL-IES,
    ProtocolExtensionContainer{},
    ProtocolIE-Single-Container{},
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;
```

```
    /* partly omitted */

-- ==========================================
--  B
-- ==========================================

BCCH-ModificationTime ::= INTEGER  (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed

Best-Cell-Portions-Value::= SEQUENCE (SIZE (1..maxNrOfCellPortionsPerCell)) OF Best-Cell-Portions-Item

Best-Cell-Portions-Item ::= SEQUENCE {
    cellPortionID               CellPortionID,
    sIRValue                    SIR-Value,
    iE-Extensions               ProtocolExtensionContainer { { Best-Cell-Portions-Item-ExtIEs} }                    OPTIONAL,
    ...
}

Best-Cell-Portions-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BindingID ::= OCTET STRING (SIZE (1..4, ...))
-- If the Binding ID includes a UDP port, the UDP port is included in octet 1 and 2.The first octet of
-- the UDP port field is included in the first octet of the Binding ID.

BetaCD ::= INTEGER (0..15)

BlockingPriorityIndicator ::= ENUMERATED {
    high,
    normal,
    low,
    ...
}
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.

SCTD-Indicator ::= ENUMERATED {
    active,
    inactive
}

-- ==========================================
--  C
-- ==========================================

Cause ::= CHOICE {
    radioNetwork            CauseRadioNetwork,
    transport           CauseTransport,
    protocol                CauseProtocol,
```

```
    misc                    CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    oam-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    rl-already-ActivatedOrAllocated,
    nodeB-Resources-unavailable,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    requested-configuration-not-supported,
    synchronisation-failure,
    priority-transport-channel-established,
    sIB-Origination-in-Node-B-not-Supported,
    requested-tx-diversity-mode-not-supported,
    unspecified,
    bCCH-scheduling-error,
    measurement-temporarily-not-available,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    s-cipch-not-supported,
    combining-not-supported,
    ul-sf—not-supported,
    dl-SF-not-supported,
    common-transport-channel-type-not-supported,
    dedicated-transport-channel-type-not-supported,
    downlink-shared-channel-type-not-supported,
    uplink-shared-channel-type-not-supported,
```

```
    cm-not-supported,
    tx-diversity-no-longer-supported,
    unknown-Local-Cell-ID,
    ...,
    number-of-UL-codes-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    cell-synchronisation-not-supported,
    cell-synchronisation-adjustment-not-supported,
    dpc-mode-change-not-supported,
    iPDL-already-activated,
    iPDL-not-supported,
    iPDL-parameters-not-available,
    frequency-acquisition-not-supported,
    power-balancing-status-not-compatible,
    requested-typeofbearer-re-arrangement-not-supported,
    signalling-Bearer-Re-arrangement-not-supported,
    bearer-Re-arrangement-needed,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported
}

CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    ...
}

CCTrCH-ID ::= INTEGER (0..15)

CDSubChannelNumbers ::= BIT STRING {
                                    subCh11(0),
                                    subCh10(1),
                                    subCh9(2),
                                    subCh8(3),
                                    subCh7(4),
                                    subCh6(5),
                                    subCh5(6),
                                    subCh4(7),
                                    subCh3(8),
                                    subCh2(9),
                                    subCh1(10),
                                    subCh0(11)
                                    } (SIZE (12))

CellParameterID ::= INTEGER (0..127,...)

CellPortionID   ::= INTEGER (0..maxNrOfCellPortionsPerCell-1,...)

CellSyncBurstCode ::= INTEGER(0..7, ...)

CellSyncBurstCodeShift ::= INTEGER(0..7)
```

```
CellSyncBurstRepetitionPeriod ::= INTEGER (0..4095)

CellSyncBurstSIR ::= INTEGER (0..31)

CellSyncBurstTiming ::= CHOICE {
    initialPhase        INTEGER (0..1048575),
    steadyStatePhase        INTEGER (0..255)
}

CellSyncBurstTimingThreshold ::= INTEGER(0..254)

CFN ::= INTEGER (0..255)

Channel-Assignment-Indication ::= ENUMERATED {
    cA-Active,
    cA-Inactive
}

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

Closedlooptimingadjustmentmode  ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    ...
}

CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost     INTEGER (0..65535),
        ul-Cost     INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }            OPTIONAL,
        ...
}

CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass       TUTRANGPSAccuracyClass,
    ...
}

CommonMeasurementType ::= ENUMERATED  {
    received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles,
```

```
    ...,
    uTRAN-GPS-Timing-of-Cell-Frames-for-UE-Positioning,
    sFN-SFN-Observed-Time-Difference,
    transmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission,
    hS-DSCH-Required-Power,
    hS-DSCH-Provided-Bit-Rate
}

CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power               Transmitted-Carrier-Power-Value,
    received-total-wide-band-power          Received-total-wide-band-power-Value,
    acknowledged-prach-preambles            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                         UL-TimeslotISCP-Value,
    acknowledged-PCPCH-access-preambles     Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles         Detected-PCPCH-access-preambles,
    ...,
    extension-CommonMeasurementValue        Extension-CommonMeasurementValue
}

Extension-CommonMeasurementValue    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

Extension-CommonMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementValueInformation    CRITICALITY ignore  TYPE TUTRANGPSMeasurementValueInformation  PRESENCE mandatory }|
    { ID id-SFNSFNMeasurementValueInformation   CRITICALITY ignore  TYPE SFNSFNMeasurementValueInformation   PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission    CRITICALITY ignore TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionValue       PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPower    CRITICALITY ignore  TYPE HS-DSCHRequiredPower       PRESENCE mandatory }|
    { ID id-HS-DSCHProvidedBitRate  CRITICALITY ignore  TYPE HS-DSCHProvidedBitRate     PRESENCE mandatory }
}

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable        CommonMeasurementAvailable,
    measurementnotAvailable     CommonMeasurementnotAvailable
}


CommonMeasurementAvailable::= SEQUENCE {
    commonmeasurementValue      CommonMeasurementValue,
    ie-Extensions                   ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }           OPTIONAL,
    ...
}


CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
CommonMeasurementnotAvailable ::= NULL

CommonPhysicalChannelID ::= INTEGER (0..255)
```

```
Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID         CommonPhysicalChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-PhysicalChannel-Status-Information-ExtIEs} }    OPTIONAL,
    ...
}

Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelID ::= INTEGER (0..255)

CommonTransportChannel-InformationResponse ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    bindingID                           BindingID               OPTIONAL,
    transportLayerAddress               TransportLayerAddress   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer  { { CommonTransportChannel-InformationResponse-ExtIEs} }   OPTIONAL,
    ...
}

CommonTransportChannel-InformationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Common-TransportChannel-Status-Information ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { Common-TransportChannel-Status-Information-ExtIEs} }   OPTIONAL,
    ...
}

Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortID ::= INTEGER (0..65535)

Compressed-Mode-Deactivation-Flag:= ENUMERATED {
    deactivate,
    maintain-Active
}

ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"

ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
```

```
-- step 1 dB

CPCH-Allowed-Total-Rate ::= ENUMERATED {
    v15,
    v30,
    v60,
    v120,
    v240,
    v480,
    v960,
    v1920,
    v2880,
    v3840,
    v4800,
    v5760,
    ...
}

CPCHScramblingCodeNumber ::= INTEGER (0..79)

CPCH-UL-DPCCH-SlotFormat ::= INTEGER (0..2,...)

CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,...}

CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

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

CriticalityDiagnostics ::= SEQUENCE {
    procedureID                 ProcedureID             OPTIONAL,
    triggeringMessage           TriggeringMessage           OPTIONAL,
    procedureCriticality        Criticality             OPTIONAL,
    transactionID               TransactionID               OPTIONAL,
    iEsCriticalityDiagnostics   CriticalityDiagnostics-IE-List  OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} }                    OPTIONAL,
    ...
}

CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality       Criticality,
        iE-ID               ProtocolIE-ID,
        repetitionNumber    RepetitionNumber0       OPTIONAL,
        iE-Extensions       ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} }                  OPTIONAL,
        ...
    }
```

```
CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {   ID id-MessageStructure      CRITICALITY ignore      EXTENSION MessageStructure      PRESENCE optional      }|
    {   ID id-TypeOfError           CRITICALITY ignore      EXTENSION TypeOfError           PRESENCE mandatory     },
    ...
}

CRNC-CommunicationContextID ::= INTEGER (0..1048575)

CSBMeasurementID ::= INTEGER (0..65535)

CSBTransmissionID ::= INTEGER (0..65535)

-- ========================================
--  D
-- ========================================

DATA-ID ::= INTEGER (0..3)

DCH-ID ::= INTEGER (0..255)

DCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem

DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-FDD-InformationList,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-FDD-InformationItem-ExtIEs} }           OPTIONAL,
    ...
}

DCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item

DCH-Specific-FDD-Item ::=   SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-Specific-FDD-Item-ExtIEs} }             OPTIONAL,
    ...
}

DCH-Specific-FDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem

DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    bindingID                               BindingID               OPTIONAL,
    transportLayerAddress                   TransportLayerAddress   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-InformationResponseItem-ExtIEs} }    OPTIONAL,
    ...
}

DCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem

DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-Specific-TDD-InformationList,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-TDD-InformationItem-ExtIEs} }          OPTIONAL,
    ...
}

DCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item

DCH-Specific-TDD-Item ::=   SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-CCTrCH-ID                            CCTrCH-ID,
    dl-CCTrCH-ID                            CCTrCH-ID,
    ul-TransportFormatSet                   TransportFormatSet,
    dl-TransportFormatSet                   TransportFormatSet,
    allocationRetentionPriority             AllocationRetentionPriority,
    frameHandlingPriority                   FrameHandlingPriority,
    qE-Selector                             QE-Selector                     OPTIONAL,
    -- This IE shall be present if DCH is part of set of Coordinated DCHs
    iE-Extensions                           ProtocolExtensionContainer { { DCH-Specific-TDD-Item-ExtIEs} }            OPTIONAL,
    ...
}

DCH-Specific-TDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem

FDD-DCHs-to-ModifyItem   ::= SEQUENCE {
```

```
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS           OPTIONAL,
    toAWE                               ToAWE           OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         DCH-ModifySpecificInformation-FDD,
    iE-Extensions                       ProtocolExtensionContainer { { FDD-DCHs-to-ModifyItem-ExtIEs} }              OPTIONAL,
    ...
}

FDD-DCHs-to-ModifyItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifySpecificInformation-FDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-FDD

DCH-ModifySpecificItem-FDD::=   SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    dl-TransportFormatSet                   TransportFormatSet          OPTIONAL,
    allocationRetentionPriority             AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                   FrameHandlingPriority       OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-ModifySpecificItem-FDD-ExtIEs} }     OPTIONAL,
    ...
}

DCH-ModifySpecificItem-FDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-TDD

DCH-ModifyItem-TDD ::= SEQUENCE {
    ul-FP-Mode                          UL-FP-Mode      OPTIONAL,
    toAWS                               ToAWS           OPTIONAL,
    toAWE                               ToAWE           OPTIONAL,
    transportBearerRequestIndicator     TransportBearerRequestIndicator,
    dCH-SpecificInformationList         DCH-ModifySpecificInformation-TDD,
    iE-Extensions                       ProtocolExtensionContainer { { TDD-DCHs-to-ModifyItem-ExtIEs} }                 OPTIONAL,
    ...
}

TDD-DCHs-to-ModifyItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifySpecificInformation-TDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-TDD

DCH-ModifySpecificItem-TDD ::=  SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-CCTrCH-ID                            CCTrCH-ID                   OPTIONAL,
    dl-CCTrCH-ID                            CCTrCH-ID                   OPTIONAL,
    ul-TransportFormatSet                   TransportFormatSet          OPTIONAL,
```

```
    dl-TransportFormatSet                       TransportFormatSet          OPTIONAL,
    allocationRetentionPriority                 AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority                       FrameHandlingPriority       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DCH-ModifySpecificItem-TDD-ExtIEs} }        OPTIONAL,
    ...
}

DCH-ModifySpecificItem-TDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
    SEQUENCE {
        dl-Cost-1       INTEGER (0..65535),
        dl-Cost-2       INTEGER (0..65535),
        ul-Cost-1       INTEGER (0..65535),
        ul-Cost-2       INTEGER (0..65535),
        iE-Extensions       ProtocolExtensionContainer { { DedicatedChannelsCapacityConsumptionLaw-ExtIEs } }         OPTIONAL,
    ...
}

DedicatedChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rscp,
    rx-timing-deviation,
    round-trip-time,
    ...,
    rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR,
    hs-sich-quality,
    best-Cell-Portions

}

DedicatedMeasurementValue ::= CHOICE {
    sIR-Value                       SIR-Value,
    sIR-ErrorValue                  SIR-Error-Value,
    transmittedCodePowerValue           Transmitted-Code-Power-Value,
    rSCP                                RSCP-Value,
    rxTimingDeviationValue              Rx-Timing-Deviation-Value,
    roundTripTime                       Round-Trip-Time-Value,
    ...,
    extension-DedicatedMeasurementValue     Extension-DedicatedMeasurementValue
}

Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}
```

```
Extension-DedicatedMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-Rx-Timing-Deviation-Value-LCR   CRITICALITY reject  TYPE Rx-Timing-Deviation-Value-LCR   PRESENCE mandatory }|
    { ID id-Angle-Of-Arrival-Value-LCR  CRITICALITY reject  TYPE Angle-Of-Arrival-Value-LCR PRESENCE mandatory }|
    { ID id-HS-SICH-Reception-Quality   CRITICALITY reject  TYPE HS-SICH-Reception-Quality-Value  PRESENCE mandatory }|
    { ID id-Best-Cell-Portions-Value    CRITICALITY reject  TYPE Best-Cell-Portions-Value   PRESENCE mandatory },
    ...
}

DedicatedMeasurementValueInformation ::= CHOICE {
    measurementAvailable        DedicatedMeasurementAvailable,
    measurementnotAvailable     DedicatedMeasurementnotAvailable
}

DedicatedMeasurementAvailable::= SEQUENCE {
    dedicatedmeasurementValue       DedicatedMeasurementValue,
    cFN                             CFN                         OPTIONAL,
    ie-Extensions                   ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }        OPTIONAL,
    ...
}

DedicatedMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DedicatedMeasurementnotAvailable ::= NULL

DelayedActivation ::= CHOICE {
    cfn                     CFN,
    separate-indication     NULL
}

DelayedActivationUpdate ::= CHOICE {
    activate        Activate-Info,
    deactivate      Deactivate-Info
}

Activate-Info ::= SEQUENCE {
    activation-type         Execution-Type,
    initial-dl-tx-power     DL-Power,
    firstRLS-Indicator      FirstRLS-Indicator                                      OPTIONAL, --FDD Only
    propagation-delay       PropagationDelay                                        OPTIONAL, --FDD Only
    iE-Extensions           ProtocolExtensionContainer { { Activate-Info-ExtIEs} }      OPTIONAL,
    ...
}

Activate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

Deactivate-Info ::= SEQUENCE {
    deactivation-type       Execution-Type,
    iE-Extensions           ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }        OPTIONAL,
    ...
}

Deactivate-Info-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Execution-Type ::= CHOICE {
    synchronised    CFN,
    unsynchronised  NULL
}

Detected-PCPCH-access-preambles ::= INTEGER (0..240,...)
-- According to mapping in [22].

DeltaSIR               ::= INTEGER (0..30)
-- Unit dB, Step 0.1 dB, Range 0..3 dB.

DGPSCorrections ::= SEQUENCE {
   gpstow               GPSTOW,
   status-health        GPS-Status-Health,
   satelliteinfo        SAT-Info-DGPSCorrections,
   ie-Extensions        ProtocolExtensionContainer { { DGPSCorrections-ExtIEs} }       OPTIONAL,
   ...
}

DGPSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DGPSThresholds ::= SEQUENCE {
   prcdeviation         PRCDeviation,
   ie-Extensions        ProtocolExtensionContainer { { DGPSThresholds-ExtIEs} }     OPTIONAL,
   ...
}

DGPSThresholds-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityControlField ::= ENUMERATED {
    may,
```

```
    must,
    must-not,
    ...
}

DiversityMode ::= ENUMERATED {
    none,
    sTTD,
    closed-loop-mode1,
    closed-loop-mode2,
    ...
}

DL-DPCH-SlotFormat ::= INTEGER (0..16,...)

DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
}

DL-Timeslot-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationItem

DL-Timeslot-InformationItem  ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-Information                     TDD-DL-Code-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationItem-ExtIEs} }      OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-TimeslotLCR-InformationItem

DL-TimeslotLCR-InformationItem   ::= SEQUENCE {
    timeSlotLCR                             TimeSlotLCR,
    midambleShiftLCR                        MidambleShiftLCR,
    tFCI-Presence                           TFCI-Presence,
    dL-Code-LCR-Information                 TDD-DL-Code-LCR-Information,
    iE-Extensions                           ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }   OPTIONAL,
    ...
}

DL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-Initial-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Maximum-DL-Power-TimeslotLCR-InformationItem    CRITICALITY ignore   EXTENSION DL-Power                  PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem  CRITICALITY ignore    EXTENSION DL-Power                  PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
```

```
    ...
}

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-or-Global-CapacityCredit ::= INTEGER (0..65535)

DL-Power ::= INTEGER (-350..150)
-- Value = DL-Power/10
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB

DLPowerAveragingWindowSize ::= INTEGER (1..60)

DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType                 PowerAdjustmentType,
    dLReferencePower                    DL-Power        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rqst     DL-ReferencePowerInformationList        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
    maxAdjustmentStep                   MaxAdjustmentStep       OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod                    AdjustmentPeriod        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio                     ScaledAdjustmentRatio   OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    iE-Extensions                       ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    ...
}

DL-PowerBalancing-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-ReferencePowerInformationList        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem

DL-ReferencePowerInformationItem ::= SEQUENCE {
    rL-ID                       RL-ID,
    dl-Reference-Power          DL-Power,
    iE-Extensions               ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    ...
}

DL-ReferencePowerInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-PowerBalancing-ActivationIndicator   ::= ENUMERATED {
    dL-PowerBalancing-Activated
}
```

```
DL-PowerBalancing-UpdatedIndicator  ::= ENUMERATED {
    dL-PowerBalancing-Updated
}

DL-ScramblingCode ::= INTEGER (0..15)
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --

DL-TimeslotISCP ::= INTEGER (0..91)

DL-TimeslotISCPInfo ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-TimeslotISCPInfoItem

DL-TimeslotISCPInfoItem ::= SEQUENCE {
    timeSlot                    TimeSlot,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { {DL-TimeslotISCPInfoItem-ExtIEs} }                    OPTIONAL,
    ...
    }

DL-TimeslotISCPInfoItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TimeslotISCPInfoLCR ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-TimeslotISCPInfoItemLCR

DL-TimeslotISCPInfoItemLCR ::= SEQUENCE {
    timeSlotLCR                 TimeSlotLCR,
    dL-TimeslotISCP             DL-TimeslotISCP,
    iE-Extensions               ProtocolExtensionContainer { {DL-TimeslotISCPInfoItemLCR-ExtIEs} }                 OPTIONAL,
    ...
    }

DL-TimeslotISCPInfoItemLCR-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-TPC-Pattern01Count ::= INTEGER (0..30,...)

Downlink-Compressed-Mode-Method     ::= ENUMERATED {
    puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}

DPC-Mode ::= ENUMERATED {
    mode0,
    mode1,
    ...
}
```

```
DPCH-ID ::= INTEGER (0..239)

DSCH-ID ::= INTEGER (0..255)

DSCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem

DSCH-InformationResponseItem ::= SEQUENCE {
    dSCH-ID                                     DSCH-ID,
    bindingID                                   BindingID                   OPTIONAL,
    transportLayerAddress                       TransportLayerAddress       OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-InformationResponseItem-ExtIEs } }     OPTIONAL,
    ...
}

DSCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-FDD-Common-Information ::= SEQUENCE {
    enhancedDSCHPCIndicator         EnhancedDSCHPCIndicator     OPTIONAL,
    enhancedDSCHPC                  EnhancedDSCHPC              OPTIONAL,
    -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-FDD-Common-Information-ExtIEs} }          OPTIONAL,
    ...
}

DSCH-FDD-Common-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-FDD-InformationItem

DSCH-FDD-InformationItem ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-FDD-InformationItem-ExtIEs} }             OPTIONAL,
    ...
}

DSCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                       CRITICALITY ignore      EXTENSION   BindingID       PRESENCE            optional }|
    { ID id-transportlayeraddress           CRITICALITY ignore      EXTENSION   TransportLayerAddress                PRESENCE    optional },
    ...
}

DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-TDD-InformationItem

DSCH-TDD-InformationItem ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
```

```
    cCTrCH-ID                           CCTrCH-ID,
    transportFormatSet                  TransportFormatSet,
    allocationRetentionPriority         AllocationRetentionPriority,
    frameHandlingPriority               FrameHandlingPriority,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-TDD-InformationItem-ExtIEs} }         OPTIONAL,
    ...
}

DSCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-bindingID                   CRITICALITY ignore      EXTENSION   BindingID       PRESENCE            optional }|
    { ID id-transportlayeraddress       CRITICALITY ignore      EXTENSION   TransportLayerAddress                PRESENCE    optional },
    ...
}

DwPCH-Power ::= ENUMERATED {minus10, minus9, minus8, minus7, minus6, minus5, minus4, minus3, minus2, minus1, zero, plus1, plus2, plus3, plus4,
plus5, ...}

    /* partly omitted */

-- ========================================
--  N
-- ========================================

Nack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [9] subclause 4.2.1

NCyclesPerSFNperiod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    ...,
    v16,
    v32,
    v64
}

NEOT ::= INTEGER (0..8)

NFmax ::= INTEGER (1..64,...)

NRepetitionsPerCyclePeriod ::= INTEGER (2..10)

N-INSYNC-IND ::= INTEGER (1..256)

N-OUTSYNC-IND ::= INTEGER (1..256)

NeighbouringCellMeasurementInformation ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
                neighbouringFDDCellMeasurementInformation       NeighbouringFDDCellMeasurementInformation, -- FDD only
                neighbouringTDDCellMeasurementInformation       NeighbouringTDDCellMeasurementInformation,
```

```
                -- Applicable to 3.84Mcps TDD only
                ...,
                extension-neighbouringCellMeasurementInformation    Extension-neighbouringCellMeasurementInformation
            }

Extension-neighbouringCellMeasurementInformation    ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE NBAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR    CRITICALITY reject  TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory },    -- Applicable to 1.28Mcps TDD only
    ...
}

NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    primaryScramblingCode               PrimaryScramblingCode,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringFDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlot                            TimeSlot                        OPTIONAL,
    midambleShiftAndBurstType           MidambleShiftAndBurstType       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-Id                               UC-Id,
    uARFCN                              UARFCN,
    cellParameterID                     CellParameterID,
    timeSlotLCR                         TimeSlotLCR             OPTIONAL,
    midambleShiftLCR                    MidambleShiftLCR        OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
    ...
}

NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

NodeB-CommunicationContextID ::= INTEGER (0..1048575)

NumberOfReportedCellPortion ::= INTEGER (1..maxNrOfCellPortionsPerCell,...)

NStartMessage ::= INTEGER (1..8)

NSubCyclesPerCyclePeriod ::= INTEGER (1..16,...)

-- ==========================================
--  O
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-- ==========================================

PagingIndicatorLength ::= ENUMERATED {
    v2,
    v4,
    v8,
    ...
}

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    cRC-Included,
    cRC-NotIncluded,
    ...
}

PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB

PCP-Length ::= ENUMERATED{
    v0,
    v8
}

PDSCH-CodeMapping ::= SEQUENCE {
    dl-ScramblingCode               DL-ScramblingCode,
    signallingMethod                    CHOICE {
        code-Range                      PDSCH-CodeMapping-PDSCH-CodeMappingInformationList,
        tFCI-Range                      PDSCH-CodeMapping-DSCH-MappingInformationList,
        explicit                            PDSCH-CodeMapping-PDSCH-CodeInformationList,
        ...,
        replace                         PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList
    },
```

```
    iE-Extensions                       ProtocolExtensionContainer  { { PDSCH-CodeMapping-ExtIEs} }             OPTIONAL,
    ...
}

PDSCH-CodeMapping-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-CodeMapping-CodeNumberComp ::= INTEGER (0..maxCodeNrComp-1)

PDSCH-CodeMapping-SpreadingFactor ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

PDSCH-CodeMapping-PDSCH-CodeMappingInformationList ::= SEQUENCE (SIZE (1..maxNrOfCodeGroups)) OF
    SEQUENCE {
        spreadingFactor             PDSCH-CodeMapping-SpreadingFactor,
        multi-CodeInfo              PDSCH-Multi-CodeInfo,
        start-CodeNumber                PDSCH-CodeMapping-CodeNumberComp,
        stop-CodeNumber             PDSCH-CodeMapping-CodeNumberComp,
        iE-Extensions                   ProtocolExtensionContainer  { { PDSCH-CodeMapping-PDSCH-CodeMappingInformationList-ExtIEs} }    OPTIONAL,
        ...
}

PDSCH-CodeMapping-PDSCH-CodeMappingInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-CodeMapping-DSCH-MappingInformationList ::= SEQUENCE (SIZE (1..maxNrOfTFCIGroups)) OF
    SEQUENCE {
        maxTFCI-field2-Value            PDSCH-CodeMapping-MaxTFCI-Field2-Value,
        spreadingFactor             PDSCH-CodeMapping-SpreadingFactor,
        multi-CodeInfo              PDSCH-Multi-CodeInfo,
        codeNumber                  PDSCH-CodeMapping-CodeNumberComp,
        iE-Extensions                   ProtocolExtensionContainer  { { PDSCH-CodeMapping-DSCH-MappingInformationList-ExtIEs} }   OPTIONAL,
        ...
}

PDSCH-CodeMapping-DSCH-MappingInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-CodeMapping-MaxTFCI-Field2-Value ::= INTEGER (1..1023)

PDSCH-CodeMapping-PDSCH-CodeInformationList ::= SEQUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
    SEQUENCE {
```

```
        spreadingFactor             PDSCH-CodeMapping-SpreadingFactor,
        multi-CodeInfo              PDSCH-Multi-CodeInfo,
        codeNumber                  PDSCH-CodeMapping-CodeNumberComp,
        iE-Extensions                   ProtocolExtensionContainer  { { PDSCH-CodeMapping-PDSCH-CodeInformationList-ExtIEs} }     OPTIONAL,
        ...
}

PDSCH-CodeMapping-PDSCH-CodeInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList ::= SEQUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
    SEQUENCE {
        tfci-Field2                 TFCS-MaxTFCI-field2-Value,
        spreadingFactor             PDSCH-CodeMapping-SpreadingFactor,
        multi-CodeInfo              PDSCH-Multi-CodeInfo,
        codeNumber                  PDSCH-CodeMapping-CodeNumberComp,
        iE-Extensions               ProtocolExtensionContainer { { PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList-ExtIEs} }     OPTIONAL,
    ...
}

PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-Multi-CodeInfo ::= INTEGER (1..16)

PDSCH-ID ::= INTEGER (0..255)

PDSCHSet-ID ::= INTEGER (0..255)

PICH-Mode ::= ENUMERATED {
    v18,
    v36,
    v72,
    v144,
    ...
}

PICH-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset ::= INTEGER (0..24)
-- PowerOffset = offset * 0.25
-- Unit dB, Range 0dB .. +6dB, Step +0.25dB

PowerRaiseLimit ::= INTEGER (0..10)
```

```
PRACH-Midamble ::= ENUMERATED {
    inverted,
    direct,
    ...
}

PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters

PRCDeviation ::= ENUMERATED {
   one,
   two,
   five,
   ten,
   ...
}

PreambleSignatures ::= BIT STRING {
                                    signature15(0),
                                    signature14(1),
                                    signature13(2),
                                    signature12(3),
                                    signature11(4),
                                    signature10(5),
                                    signature9(6),
                                    signature8(7),
                                    signature7(8),
                                    signature6(9),
                                    signature5(10),
                                    signature4(11),
                                    signature3(12),
                                    signature2(13),
                                    signature1(14),
                                    signature0(15)
                                    } (SIZE (16))

PreambleThreshold ::= INTEGER (0..72)
-- 0= -36.0dB, 1= -35.5dB, ... , 72= 0.0dB

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

Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
}

Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
```

```
    pre-emptable
}

PrimaryCPICH-Power ::= INTEGER(-100..500)
-- step 0.1 (Range –10.0..50.0) Unit is dBm

Primary-CPICH-Usage-for-Channel-Estimation ::= ENUMERATED {
   primary-CPICH-may-be-used,
   primary-CPICH-shall-not-be-used
}

PrimaryScramblingCode ::= INTEGER (0..511)

PriorityLevel               ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority

PriorityQueue-Id ::= INTEGER (0..maxNrOfPriorityQueues-1)

PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem

PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueueId                 PriorityQueue-Id,
    schedulingPriorityIndicator     SchedulingPriorityIndicator,
    t1                              T1,
    mAC-hsWindowSize                MAC-hsWindowSize,
    mAChsGuaranteedBitRate          MAChsGuaranteedBitRate                                          OPTIONAL,
    macdPDU-Size-Index              MACdPDU-Size-Indexlist,
    iE-Extensions                   ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs} }     OPTIONAL,
    ...
}

PriorityQueue-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPriorityQueues)) OF PriorityQueue-InfoItem-to-Modify

PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueueId                 PriorityQueue-Id,
    schedulingPriorityIndicator     SchedulingPriorityIndicator                                     OPTIONAL,
    t1                              T1                                                              OPTIONAL,
    mAC-hsWindowSize                MAC-hsWindowSize                                                OPTIONAL,
    mAChsGuaranteedBitRate          MAChsGuaranteedBitRate                                          OPTIONAL,
    macdPDU-Size-Index-to-Modify    MACdPDU-Size-Indexlist-to-Modify                                OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs} }   OPTIONAL,
    ...
}

PriorityQueue-InfoItem-to-Modify-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-RSCP ::= INTEGER (0..91)
```

```
PropagationDelay ::= INTEGER (0..255)
-- Unit: chips, step size 3 chips
-- example: 0 = 0chip, 1 = 3chips

SCH-TimeSlot ::= INTEGER (0..6)

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

PUSCH-ID ::= INTEGER (0..255)

PUSCHSet-ID ::= INTEGER (0..255)

    /* partly omitted */

-- ==========================================
--  S
-- ==========================================

AdjustmentPeriod            ::= INTEGER(1..256)
-- Unit Frame

SAT-ID ::= INTEGER (0..63)

SAT-Info-Almanac ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-Almanac-Item

SAT-Info-Almanac-Item ::= SEQUENCE {
    data-id            DATA-ID,
    sat-id             SAT-ID,
    gps-e-alm          BIT STRING (SIZE (16)),
    gps-toa-alm        BIT STRING (SIZE (8)),
    gps-delta-I-alm    BIT STRING (SIZE (16)),
    omegadot-alm       BIT STRING (SIZE (16)),
    svhealth-alm       BIT STRING (SIZE (8)),
    gps-a-sqrt-alm     BIT STRING (SIZE (24)),
    omegazero-alm      BIT STRING (SIZE (24)),
    m-zero-alm         BIT STRING (SIZE (24)),
    gps-omega-alm      BIT STRING (SIZE (24)),
    gps-af-zero-alm    BIT STRING (SIZE (11)),
    gps-af-one-alm     BIT STRING (SIZE (11)),
    ie-Extensions      ProtocolExtensionContainer { { SAT-Info-Almanac-Item-ExtIEs} }       OPTIONAL,
   ...
}

SAT-Info-Almanac-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SAT-Info-DGPSCorrections ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-DGPSCorrections-Item

SAT-Info-DGPSCorrections-Item ::= SEQUENCE {
```

```
    sat-id                              SAT-ID,
    iode-dgps                           BIT STRING (SIZE (8)),
    udre                                UDRE,
    prc                                 PRC,
    range-correction-rate               Range-Correction-Rate,
    ie-Extensions                       ProtocolExtensionContainer { { SAT-Info-DGPSCorrections-Item-ExtIEs} }  OPTIONAL,
   ...
}

SAT-Info-DGPSCorrections-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SATInfo-RealTime-Integrity ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-RealTime-Integrity-Item

SAT-Info-RealTime-Integrity-Item ::= SEQUENCE {
  bad-sat-id       SAT-ID,
  ie-Extensions    ProtocolExtensionContainer { { SAT-Info-RealTime-Integrity-Item-ExtIEs} }                    OPTIONAL,
   ...
}

SAT-Info-RealTime-Integrity-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ScaledAdjustmentRatio           ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

MaxAdjustmentStep           ::= INTEGER(1..10)
-- Unit Slot

SchedulingPriorityIndicator             ::= INTEGER (0..15)      -- lowest (0), highest (15)

SID ::= INTEGER (0..maxNrOfMACdPDUIndexes-1)

ScramblingCodeNumber ::= INTEGER (0..15)

Secondary-CPICH-Information-Change ::= CHOICE {
    new-secondary-CPICH                 CommonPhysicalChannelID,
    secondary-CPICH-shall-not-be-used   NULL,
...
}

SecondaryCCPCH-SlotFormat ::= INTEGER(0..17,...)

Segment-Type ::= ENUMERATED {
        first-segment,
        first-segment-short,
        subsequent-segment,
        last-segment,
        last-segment-short,
```

```
        complete-SIB,
        complete-SIB-short,
        ...
}

S-FieldLength ::= ENUMERATED {
        v1,
        v2,
        ...
}

SFN ::= INTEGER (0..4095)

SFNSFN-FDD ::= INTEGER (0..614399)

SFNSFN-TDD ::= INTEGER (0..40961)

SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s

SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s

SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit                   SFNSFNChangeLimit                   OPTIONAL,
    predictedSFNSFNDeviationLimit       PredictedSFNSFNDeviationLimit       OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }    OPTIONAL,
    ...
}

SFNSFNMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation      SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-Id                       UC-Id,
            sFNSFNValue                 SFNSFNValue,
            sFNSFNQuality               SFNSFNQuality               OPTIONAL,
            sFNSFNDriftRate             SFNSFNDriftRate,
            sFNSFNDriftRateQuality      SFNSFNDriftRateQuality      OPTIONAL,
            sFNSFNTimeStampInformation  SFNSFNTimeStampInformation,
            iE-Extensions       ProtocolExtensionContainer { { SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
            ...
        },
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation     SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
```

```
        SEQUENCE {
            uC-Id                       UC-Id,
            iE-Extensions       ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }       OPTIONAL,
            ...
        },
    iE-Extensions       ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }               OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

ShutdownTimer ::= INTEGER (1..3600)
-- Unit sec

SIB-Originator ::= ENUMERATED {
    nodeB,
    cRNC,
    ...
}

SIR-Error-Value ::= INTEGER (0..125)
-- According to mapping in [22]


SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD     SFN,
    sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,
    ...}

SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN                 SFN,
    timeSlot            TimeSlot,
    iE-Extensions                   ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs} }                    OPTIONAL,
    ...
}
```

```
SFNSFNTimeStamp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNValue ::= CHOICE {
    sFNSFN-FDD      SFNSFN-FDD,
    sFNSFN-TDD      SFNSFN-TDD,
    ...
}

SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)

SIR-Value ::= INTEGER (0..63)
-- According to mapping in [22]/[23]

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SignallingBearerRequestIndicator::= ENUMERATED {bearerRequested}

SpecialBurstScheduling ::= INTEGER (1..256)

SSDT-Cell-Identity ::= ENUMERATED {a, b, c, d, e, f, g, h}

SSDT-CellID-Length ::= ENUMERATED {
    short,
    medium,
    long
}

SSDT-Indication ::= ENUMERATED {
    ssdt-active-in-the-UE,
    ssdt-not-active-in-the-UE
}

Start-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    start-of-audit-sequence,
    not-start-of-audit-sequence
}

STTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-Supported,
    sSDT-not-supported
}
```

```
SyncCase ::= INTEGER (1..2,...)

SYNCDlCodeId ::= INTEGER (1..32,...)

SyncFrameNumber ::= INTEGER (1..10)

SynchronisationReportCharacteristics ::= SEQUENCE {
    synchronisationReportCharacteristicsType    SynchronisationReportCharacteristicsType,
    synchronisationReportCharactThreExc         SynchronisationReportCharactThreExc     OPTIONAL,
        -- Thie IE shall be included if the synchronisationReportCharacteristicsType IE is set to “thresholdExceeding”.
    iE-Extensions                               ProtocolExtensionContainer { { SynchronisationReportCharacteristics-ExtIEs } } OPTIONAL,
    ...
}

SynchronisationReportCharacteristics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SyncDLCodeIdThreInfoLCR CRITICALITY ignore EXTENSION    SyncDLCodeIdThreInfoLCR     PRESENCE optional },
    ...
}

SynchronisationReportCharactThreExc ::=     SEQUENCE (SIZE (1..maxNrOfCellSyncBursts)) OF SynchronisationReportCharactThreInfoItem  –- Mandatory for
3.84Mcps TDD only

SynchronisationReportCharactThreInfoItem ::= SEQUENCE {
    syncFrameNumber             SyncFrameNumber,
    cellSyncBurstInformation    SEQUENCE (SIZE (1.. maxNrOfReceptsPerSyncFrame)) OF SynchronisationReportCharactCellSyncBurstInfoItem,
    iE-Extensions               ProtocolExtensionContainer { { SynchronisationReportCharactThreInfoItem-ExtIEs } }    OPTIONAL,
    ...
}

SynchronisationReportCharactThreInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SynchronisationReportCharactCellSyncBurstInfoItem ::= SEQUENCE {
    cellSyncBurstCode               CellSyncBurstCode,
    cellSyncBurstCodeShift          CellSyncBurstCodeShift,
    cellSyncBurstTiming             CellSyncBurstTiming             OPTIONAL,
    cellSyncBurstTimingThreshold    CellSyncBurstTimingThreshold    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs } }   OPTIONAL,
    ...
}

SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeIdThreInfoLCR ::= SEQUENCE (SIZE (0..maxNrOfSyncFramesLCR)) OF SyncDLCodeIdThreInfoList  --Mandatory for 1.28Mcps TDD only

SyncDLCodeIdThreInfoList ::= SEQUENCE {
    syncFrameNoToReceive            SyncFrameNumber,
    syncDLCodeIdInfoLCR             SyncDLCodeInfoListLCR,
    iE-Extensions                   ProtocolExtensionContainer { { SyncDLCodeIdThreInfoList-ExtIEs } }    OPTIONAL,
```

```
    ...
}

SyncDLCodeIdThreInfoList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SyncDLCodeInfoListLCR ::= SEQUENCE (SIZE (1..maxNrOfSyncDLCodesLCR)) OF SyncDLCodeInfoItemLCR

SyncDLCodeInfoItemLCR ::= SEQUENCE {
    syncDLCodeId                    SYNCDlCodeId,
    syncDLCodeIdArrivTime           CellSyncBurstTiming             OPTIONAL,
    syncDLCodeIdTimingThre          CellSyncBurstTimingThreshold    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { SyncDLCodeInfoItem-LCR-ExtIEs } }    OPTIONAL,
    ...
}

SyncDLCodeInfoItem-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SynchronisationReportCharacteristicsType ::= ENUMERATED {
    frameRelated,
    sFNperiodRelated,
    cycleLengthRelated,
    thresholdExceeding,
    frequencyAcquisitionCompleted,
    ...
}

SynchronisationReportType ::= ENUMERATED {
    initialPhase,
    steadyStatePhase,
    lateEntrantCell,
    frequencyAcquisition,
    ...
}

    /* partly omitted */
```

## 9.3.6 Constant Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************

id-audit                                        ProcedureCode ::= 0
id-auditRequired                                ProcedureCode ::= 1
id-blockResource                                ProcedureCode ::= 2
id-cellDeletion                                 ProcedureCode ::= 3
id-cellReconfiguration                          ProcedureCode ::= 4
id-cellSetup                                    ProcedureCode ::= 5
id-cellSynchronisationInitiation                ProcedureCode ::= 45
id-cellSynchronisationReconfiguration           ProcedureCode ::= 46
id-cellSynchronisationReporting                 ProcedureCode ::= 47
id-cellSynchronisationTermination               ProcedureCode ::= 48
id-cellSynchronisationFailure                   ProcedureCode ::= 49
id-commonMeasurementFailure                     ProcedureCode ::= 6
id-commonMeasurementInitiation                  ProcedureCode ::= 7
id-commonMeasurementReport                      ProcedureCode ::= 8
id-commonMeasurementTermination                 ProcedureCode ::= 9
id-commonTransportChannelDelete                 ProcedureCode ::= 10
id-commonTransportChannelReconfigure            ProcedureCode ::= 11
id-commonTransportChannelSetup                  ProcedureCode ::= 12
id-compressedModeCommand                        ProcedureCode ::= 14
id-dedicatedMeasurementFailure                  ProcedureCode ::= 16
id-dedicatedMeasurementInitiation               ProcedureCode ::= 17
id-dedicatedMeasurementReport                   ProcedureCode ::= 18
id-dedicatedMeasurementTermination              ProcedureCode ::= 19
id-downlinkPowerControl                         ProcedureCode ::= 20
```

```
id-downlinkPowerTimeslotControl                         ProcedureCode ::= 38
id-errorIndicationForCommon                             ProcedureCode ::= 35
id-errorIndicationForDedicated                          ProcedureCode ::= 21
id-informationExchangeFailure                           ProcedureCode ::= 40
id-informationExchangeInitiation                        ProcedureCode ::= 41
id-informationExchangeTermination                       ProcedureCode ::= 42
id-informationReporting                                 ProcedureCode ::= 43
id-BearerRearrangement                                  ProcedureCode ::= 50
id-physicalSharedChannelReconfiguration                 ProcedureCode ::= 37
id-privateMessageForCommon                              ProcedureCode ::= 36
id-privateMessageForDedicated                           ProcedureCode ::= 22
id-radioLinkAddition                                    ProcedureCode ::= 23
id-radioLinkDeletion                                    ProcedureCode ::= 24
id-radioLinkFailure                                     ProcedureCode ::= 25
id-radioLinkPreemption                                  ProcedureCode ::= 39
id-radioLinkRestoration                                 ProcedureCode ::= 26
id-radioLinkSetup                                       ProcedureCode ::= 27
id-reset                                                ProcedureCode ::= 13
id-resourceStatusIndication                             ProcedureCode ::= 28
id-cellSynchronisationAdjustment                        ProcedureCode ::= 44
id-synchronisedRadioLinkReconfigurationCancellation     ProcedureCode ::= 29
id-synchronisedRadioLinkReconfigurationCommit           ProcedureCode ::= 30
id-synchronisedRadioLinkReconfigurationPreparation      ProcedureCode ::= 31
id-systemInformationUpdate                              ProcedureCode ::= 32
id-unblockResource                                      ProcedureCode ::= 33
id-unSynchronisedRadioLinkReconfiguration               ProcedureCode ::= 34
id-radioLinkActivation                                  ProcedureCode ::= 51
id-radioLinkParameterUpdate                             ProcedureCode ::= 52

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxNrOfCodes                INTEGER ::= 10
maxNrOfDLTSs                INTEGER ::= 15
maxNrOfDLTSLCRs             INTEGER ::= 6
maxNrOfErrors               INTEGER ::= 256
maxNrOfTFs                  INTEGER ::= 32
maxNrOfTFCs                 INTEGER ::= 1024
maxNrOfRLs                  INTEGER ::= 16
maxNrOfRLs-1                INTEGER ::= 15  -- maxNrOfRLs – 1
maxNrOfRLs-2                INTEGER ::= 14  -- maxNrOfRLs – 2
maxNrOfRLSets               INTEGER ::= maxNrOfRLs
maxNrOfDPCHs                INTEGER ::= 240
maxNrOfDPCHLCRs             INTEGER ::= 240
maxNrOfSCCPCHs              INTEGER ::= 8
maxNrOfCPCHs                INTEGER ::= 16
maxNrOfPCPCHs               INTEGER ::= 64
maxNrOfDCHs                 INTEGER ::= 128
maxNrOfDSCHs                INTEGER ::= 32
maxNrOfFACHs                INTEGER ::= 8
```

```
maxNrOfCCTrCHs              INTEGER ::= 16
maxNrOfPDSCHs               INTEGER ::= 256
maxNrOfHSPDSCHs             INTEGER ::= 16
maxNrOfPUSCHs               INTEGER ::= 256
maxNrOfPDSCHSets            INTEGER ::= 256
maxNrOfPRACHLCRs            INTEGER ::= 8
maxNrOfPUSCHSets            INTEGER ::= 256
maxNrOfSCCPCHLCRs           INTEGER ::= 8
maxNrOfULTSs                INTEGER ::= 15
maxNrOfULTSLCRs             INTEGER ::= 6
maxNrOfUSCHs                INTEGER ::= 32
maxAPSigNum                 INTEGER ::= 16
maxNrOfSlotFormatsPRACH     INTEGER ::= 8
maxCellinNodeB              INTEGER ::= 256
maxCCPinNodeB               INTEGER ::= 256
maxCPCHCell                 INTEGER ::= maxNrOfCPCHs
maxCTFC                     INTEGER ::= 16777215
maxLocalCellinNodeB         INTEGER ::= maxCellinNodeB
maxNoofLen                  INTEGER ::= 7
maxFPACHCell                INTEGER ::= 8
maxRACHCell                 INTEGER ::= maxPRACHCell
maxPRACHCell                INTEGER ::= 16
maxPCPCHCell                INTEGER ::= 64
maxSCCPCHCell               INTEGER ::= 32
maxSCPICHCell               INTEGER ::= 32
maxTTI-count                INTEGER ::= 4
maxIBSEG                    INTEGER ::= 16
maxIB                       INTEGER ::= 64
maxFACHCell                 INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching             INTEGER ::= 256
maxCodeNrComp-1             INTEGER ::= 256
maxHS-PDSCHCodeNrComp-1     INTEGER ::= 15
maxHS-SCCHCodeNrComp-1      INTEGER ::= 127
maxNrOfCellSyncBursts       INTEGER ::= 10
maxNrOfCodeGroups           INTEGER ::= 256
maxNrOfReceptsPerSyncFrame  INTEGER ::= 16
maxNrOfMeasNCell            INTEGER ::= 96
maxNrOfMeasNCell-1          INTEGER ::= 95  -- maxNrOfMeasNCell – 1
maxNrOfTFCIGroups           INTEGER ::= 256
maxNrOfTFCI1Combs           INTEGER ::= 512
maxNrOfTFCI2Combs           INTEGER ::= 1024
maxNrOfTFCI2Combs-1         INTEGER ::= 1023
maxNrOfSF                   INTEGER ::= 8
maxTGPS                     INTEGER ::= 6
maxCommunicationContext     INTEGER ::= 1048575
maxNrOfLevels               INTEGER ::= 256
maxNoSat                    INTEGER ::= 16
maxNoGPSItems               INTEGER ::= 8
maxNrOfHSSCCHs              INTEGER ::= 32
maxNrOfHSSICHs              INTEGER ::= 4
maxNrOfSyncFramesLCR        INTEGER ::= 512
maxNrOfReceptionsperSyncFrameLCR    INTEGER ::= 8
maxNrOfSyncDLCodesLCR       INTEGER ::= 32
```

```
maxNrOfHSSCCHCodes          INTEGER ::= 4
maxNrOfMACdFlows            INTEGER ::= 8
maxNrOfMACdFlows-1          INTEGER ::= 7   -- maxNrOfMACdFlows - 1
maxNrOfMACdPDUIndexes       INTEGER ::= 8
maxNrOfMACdPDUIndexes-1     INTEGER ::= 7   -- maxNoOfMACdPDUIndexes - 1
maxNrOfPriorityQueues       INTEGER ::= 8
maxNrOfPriorityQueues-1     INTEGER ::= 7   -- maxNoOfPriorityQueues - 1
maxNrOfHARQProcesses        INTEGER ::= 8
maxNrOfContextsOnUeList     INTEGER ::= 16
maxNrOfCellPortionsPerCell      INTEGER ::= 64
maxNrOfCellPortionsPerCell-1        INTEGER ::= 63

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

id-AICH-Information                                             ProtocolIE-ID ::= 0
id-AICH-InformationItem-ResourceStatusInd                       ProtocolIE-ID ::= 1
id-BCH-Information                                              ProtocolIE-ID ::= 7
id-BCH-InformationItem-ResourceStatusInd                        ProtocolIE-ID ::= 8
id-BCCH-ModificationTime                                        ProtocolIE-ID ::= 9
id-BlockingPriorityIndicator                                    ProtocolIE-ID ::= 10
id-Cause                                                        ProtocolIE-ID ::= 13
id-CCP-InformationItem-AuditRsp                                 ProtocolIE-ID ::= 14
id-CCP-InformationList-AuditRsp                                 ProtocolIE-ID ::= 15
id-CCP-InformationItem-ResourceStatusInd                        ProtocolIE-ID ::= 16
id-Cell-InformationItem-AuditRsp                                ProtocolIE-ID ::= 17
id-Cell-InformationItem-ResourceStatusInd                       ProtocolIE-ID ::= 18
id-Cell-InformationList-AuditRsp                                ProtocolIE-ID ::= 19
id-CellParameterID                                              ProtocolIE-ID ::= 23
id-CFN                                                          ProtocolIE-ID ::= 24
id-C-ID                                                         ProtocolIE-ID ::= 25
id-CommonMeasurementAccuracy                                    ProtocolIE-ID ::= 39
id-CommonMeasurementObjectType-CM-Rprt                          ProtocolIE-ID ::= 31
id-CommonMeasurementObjectType-CM-Rqst                          ProtocolIE-ID ::= 32
id-CommonMeasurementObjectType-CM-Rsp                           ProtocolIE-ID ::= 33
id-CommonMeasurementType                                        ProtocolIE-ID ::= 34
id-CommonPhysicalChannelID                                      ProtocolIE-ID ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD                  ProtocolIE-ID ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD                  ProtocolIE-ID ::= 37
id-CommunicationControlPortID                                   ProtocolIE-ID ::= 40
id-ConfigurationGenerationID                                    ProtocolIE-ID ::= 43
id-CRNC-CommunicationContextID                                  ProtocolIE-ID ::= 44
id-CriticalityDiagnostics                                       ProtocolIE-ID ::= 45
id-DCHs-to-Add-FDD                                              ProtocolIE-ID ::= 48
id-DCH-AddList-RL-ReconfPrepTDD                                 ProtocolIE-ID ::= 49
id-DCHs-to-Add-TDD                                              ProtocolIE-ID ::= 50
id-DCH-DeleteList-RL-ReconfPrepFDD                              ProtocolIE-ID ::= 52
id-DCH-DeleteList-RL-ReconfPrepTDD                              ProtocolIE-ID ::= 53
id-DCH-DeleteList-RL-ReconfRqstFDD                              ProtocolIE-ID ::= 54
id-DCH-DeleteList-RL-ReconfRqstTDD                              ProtocolIE-ID ::= 55
```

```
id-DCH-FDD-Information                                  ProtocolIE-ID ::= 56
id-DCH-TDD-Information                                  ProtocolIE-ID ::= 57
id-DCH-InformationResponse                              ProtocolIE-ID ::= 59
id-FDD-DCHs-to-Modify                                   ProtocolIE-ID ::= 62
id-TDD-DCHs-to-Modify                                   ProtocolIE-ID ::= 63
id-DCH-ModifyList-RL-ReconfRqstTDD                      ProtocolIE-ID ::= 65
id-DCH-RearrangeList-Bearer-RearrangeInd                ProtocolIE-ID ::= 135
id-DedicatedMeasurementObjectType-DM-Rprt               ProtocolIE-ID ::= 67
id-DedicatedMeasurementObjectType-DM-Rqst               ProtocolIE-ID ::= 68
id-DedicatedMeasurementObjectType-DM-Rsp                ProtocolIE-ID ::= 69
id-DedicatedMeasurementType                             ProtocolIE-ID ::= 70
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD            ProtocolIE-ID ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD         ProtocolIE-ID ::= 73
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD            ProtocolIE-ID ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD           ProtocolIE-ID ::= 77
id-DL-DPCH-InformationList-RL-SetupRqstTDD              ProtocolIE-ID ::= 79
id-DL-DPCH-Information-RL-ReconfPrepFDD                 ProtocolIE-ID ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD                 ProtocolIE-ID ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD                  ProtocolIE-ID ::= 83
id-DL-DPCH-TimingAdjustment                             ProtocolIE-ID ::= 21
id-DL-ReferencePowerInformationItem-DL-PC-Rqst          ProtocolIE-ID ::= 84
id-DLReferencePower                                     ProtocolIE-ID ::= 85
id-DLReferencePowerList-DL-PC-Rqst                      ProtocolIE-ID ::= 86
id-DSCH-AddItem-RL-ReconfPrepFDD                        ProtocolIE-ID ::= 87
id-DSCHs-to-Add-FDD                                     ProtocolIE-ID ::= 89
id-DSCH-DeleteItem-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 91
id-DSCH-DeleteList-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 93
id-DSCHs-to-Add-TDD                                     ProtocolIE-ID ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD         ProtocolIE-ID ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD         ProtocolIE-ID ::= 100
id-DSCH-InformationResponse                             ProtocolIE-ID ::= 105
id-DSCH-FDD-Information                                 ProtocolIE-ID ::= 106
id-DSCH-TDD-Information                                 ProtocolIE-ID ::= 107
id-DSCH-ModifyItem-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 108
id-DSCH-ModifyList-RL-ReconfPrepFDD                     ProtocolIE-ID ::= 112
id-DSCH-RearrangeList-Bearer-RearrangeInd               ProtocolIE-ID ::= 136
id-End-Of-Audit-Sequence-Indicator                      ProtocolIE-ID ::= 113
id-FACH-Information                                     ProtocolIE-ID ::= 116
id-FACH-InformationItem-ResourceStatusInd               ProtocolIE-ID ::= 117
id-FACH-ParametersList-CTCH-ReconfRqstTDD               ProtocolIE-ID ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD              ProtocolIE-ID ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD              ProtocolIE-ID ::= 122
id-IndicationType-ResourceStatusInd                     ProtocolIE-ID ::= 123
id-Local-Cell-ID                                        ProtocolIE-ID ::= 124
id-Local-Cell-Group-InformationItem-AuditRsp            ProtocolIE-ID ::= 2
id-Local-Cell-Group-InformationItem-ResourceStatusInd   ProtocolIE-ID ::= 3
id-Local-Cell-Group-InformationItem2-ResourceStatusInd  ProtocolIE-ID ::= 4
id-Local-Cell-Group-InformationList-AuditRsp            ProtocolIE-ID ::= 5
id-Local-Cell-InformationItem-AuditRsp                  ProtocolIE-ID ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd         ProtocolIE-ID ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd        ProtocolIE-ID ::= 127
id-Local-Cell-InformationList-AuditRsp                  ProtocolIE-ID ::= 128
id-AdjustmentPeriod                                     ProtocolIE-ID ::= 129
```

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id-MaxAdjustmentStep                                    ProtocolIE-ID ::= 130
id-MaximumTransmissionPower                             ProtocolIE-ID ::= 131
id-MeasurementFilterCoefficient                         ProtocolIE-ID ::= 132
id-MeasurementID                                        ProtocolIE-ID ::= 133
id-MessageStructure                                     ProtocolIE-ID ::= 115
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst      ProtocolIE-ID ::= 134
id-NodeB-CommunicationContextID                         ProtocolIE-ID ::= 143
id-NeighbouringCellMeasurementInformation               ProtocolIE-ID ::= 455
id-P-CCPCH-Information                                  ProtocolIE-ID ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd            ProtocolIE-ID ::= 145
id-P-CPICH-Information                                  ProtocolIE-ID ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd            ProtocolIE-ID ::= 147
id-P-SCH-Information                                    ProtocolIE-ID ::= 148
id-PCCPCH-Information-Cell-ReconfRqstTDD                ProtocolIE-ID ::= 150
id-PCCPCH-Information-Cell-SetupRqstTDD                 ProtocolIE-ID ::= 151
id-PCH-Parameters-CTCH-ReconfRqstTDD                    ProtocolIE-ID ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD                 ProtocolIE-ID ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD                 ProtocolIE-ID ::= 157
id-PCH-Information                                      ProtocolIE-ID ::= 158
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst          ProtocolIE-ID ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst       ProtocolIE-ID ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst                    ProtocolIE-ID ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst                 ProtocolIE-ID ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst                 ProtocolIE-ID ::= 165
id-PICH-Information                                     ProtocolIE-ID ::= 166
id-PICH-Parameters-CTCH-ReconfRqstTDD                   ProtocolIE-ID ::= 168
id-PowerAdjustmentType                                  ProtocolIE-ID ::= 169
id-PRACH-Information                                    ProtocolIE-ID ::= 170
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD          ProtocolIE-ID ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD           ProtocolIE-ID ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD          ProtocolIE-ID ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD           ProtocolIE-ID ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD            ProtocolIE-ID ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD             ProtocolIE-ID ::= 180
id-PrimaryScramblingCode                                ProtocolIE-ID ::= 181
id-SCH-Information-Cell-ReconfRqstTDD                   ProtocolIE-ID ::= 183
id-SCH-Information-Cell-SetupRqstTDD                    ProtocolIE-ID ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst          ProtocolIE-ID ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst       ProtocolIE-ID ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst                    ProtocolIE-ID ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst                 ProtocolIE-ID ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst                 ProtocolIE-ID ::= 189
id-RACH-Information                                     ProtocolIE-ID ::= 190
id-RACH-ParametersItem-CTCH-SetupRqstFDD                ProtocolIE-ID ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD                 ProtocolIE-ID ::= 197
id-ReportCharacteristics                                ProtocolIE-ID ::= 198
id-Reporting-Object-RL-FailureInd                       ProtocolIE-ID ::= 199
id-Reporting-Object-RL-RestoreInd                       ProtocolIE-ID ::= 200
id-RL-InformationItem-DM-Rprt                           ProtocolIE-ID ::= 202
id-RL-InformationItem-DM-Rqst                           ProtocolIE-ID ::= 203
id-RL-InformationItem-DM-Rsp                            ProtocolIE-ID ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD                ProtocolIE-ID ::= 205
id-RL-informationItem-RL-DeletionRqst                   ProtocolIE-ID ::= 206
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id-RL-InformationItem-RL-FailureInd                              ProtocolIE-ID ::= 207
id-RL-InformationItem-RL-PreemptRequiredInd                      ProtocolIE-ID ::= 286
id-RL-InformationItem-RL-ReconfPrepFDD                           ProtocolIE-ID ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD                           ProtocolIE-ID ::= 209
id-RL-InformationItem-RL-RestoreInd                              ProtocolIE-ID ::= 210
id-RL-InformationItem-RL-SetupRqstFDD                            ProtocolIE-ID ::= 211
id-RL-InformationList-RL-AdditionRqstFDD                         ProtocolIE-ID ::= 212
id-RL-informationList-RL-DeletionRqst                            ProtocolIE-ID ::= 213
id-RL-InformationList-RL-PreemptRequiredInd                      ProtocolIE-ID ::= 237
id-RL-InformationList-RL-ReconfPrepFDD                           ProtocolIE-ID ::= 214
id-RL-InformationList-RL-ReconfRqstFDD                           ProtocolIE-ID ::= 215
id-RL-InformationList-RL-SetupRqstFDD                            ProtocolIE-ID ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD                  ProtocolIE-ID ::= 217
id-RL-InformationResponseItem-RL-ReconfReady                     ProtocolIE-ID ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp                       ProtocolIE-ID ::= 219
id-RL-InformationResponseItem-RL-SetupRspFDD                     ProtocolIE-ID ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD                  ProtocolIE-ID ::= 221
id-RL-InformationResponseList-RL-ReconfReady                     ProtocolIE-ID ::= 222
id-RL-InformationResponseList-RL-ReconfRsp                       ProtocolIE-ID ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD                     ProtocolIE-ID ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD                      ProtocolIE-ID ::= 225
id-RL-InformationResponse-RL-SetupRspTDD                         ProtocolIE-ID ::= 226
id-RL-Information-RL-AdditionRqstTDD                             ProtocolIE-ID ::= 227
id-RL-Information-RL-ReconfRqstTDD                               ProtocolIE-ID ::= 228
id-RL-Information-RL-ReconfPrepTDD                               ProtocolIE-ID ::= 229
id-RL-Information-RL-SetupRqstTDD                                ProtocolIE-ID ::= 230
id-RL-ReconfigurationFailureItem-RL-ReconfFailure                ProtocolIE-ID ::= 236
id-RL-Set-InformationItem-DM-Rprt                                ProtocolIE-ID ::= 238
id-RL-Set-InformationItem-DM-Rsp                                 ProtocolIE-ID ::= 240
id-RL-Set-InformationItem-RL-FailureInd                          ProtocolIE-ID ::= 241
id-RL-Set-InformationItem-RL-RestoreInd                          ProtocolIE-ID ::= 242
id-S-CCPCH-Information                                           ProtocolIE-ID ::= 247
id-S-CPICH-Information                                           ProtocolIE-ID ::= 249
id-SCH-Information                                               ProtocolIE-ID ::= 251
id-S-SCH-Information                                             ProtocolIE-ID ::= 253
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD                      ProtocolIE-ID ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD             ProtocolIE-ID ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD                 ProtocolIE-ID ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD             ProtocolIE-ID ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD              ProtocolIE-ID ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD             ProtocolIE-ID ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD              ProtocolIE-ID ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD                   ProtocolIE-ID ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD                    ProtocolIE-ID ::= 265
id-SegmentInformationListIE-SystemInfoUpdate                     ProtocolIE-ID ::= 266
id-SFN                                                           ProtocolIE-ID ::= 268
id-SignallingBearerRequestIndicator                              ProtocolIE-ID ::= 138
id-ShutdownTimer                                                 ProtocolIE-ID ::= 269
id-Start-Of-Audit-Sequence-Indicator                             ProtocolIE-ID ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD       ProtocolIE-ID ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD          ProtocolIE-ID ::= 271
id-SyncCase                                                      ProtocolIE-ID ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH                  ProtocolIE-ID ::= 275
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id-T-Cell                                                ProtocolIE-ID ::= 276
id-TargetCommunicationControlPortID                      ProtocolIE-ID ::= 139
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD          ProtocolIE-ID ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD           ProtocolIE-ID ::= 278
id-TransmissionDiversityApplied                          ProtocolIE-ID ::= 279
id-TypeOfError                                           ProtocolIE-ID ::= 508
id-UARFCNforNt                                           ProtocolIE-ID ::= 280
id-UARFCNforNd                                           ProtocolIE-ID ::= 281
id-UARFCNforNu                                           ProtocolIE-ID ::= 282
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD             ProtocolIE-ID ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD          ProtocolIE-ID ::= 285
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD             ProtocolIE-ID ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD            ProtocolIE-ID ::= 289
id-UL-DPCH-InformationList-RL-SetupRqstTDD               ProtocolIE-ID ::= 291
id-UL-DPCH-Information-RL-ReconfPrepFDD                  ProtocolIE-ID ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD                  ProtocolIE-ID ::= 294
id-UL-DPCH-Information-RL-SetupRqstFDD                   ProtocolIE-ID ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ProtocolIE-ID ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ProtocolIE-ID ::= 297
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ProtocolIE-ID ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD    ProtocolIE-ID ::= 301
id-USCH-Information-Add                                  ProtocolIE-ID ::= 302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD          ProtocolIE-ID ::= 304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD          ProtocolIE-ID ::= 306
id-USCH-InformationResponse                              ProtocolIE-ID ::= 309
id-USCH-Information                                      ProtocolIE-ID ::= 310
id-USCH-RearrangeList-Bearer-RearrangeInd                ProtocolIE-ID ::= 141
id-Active-Pattern-Sequence-Information                   ProtocolIE-ID ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD              ProtocolIE-ID ::= 316
id-AdjustmentRatio                                       ProtocolIE-ID ::= 317
id-AP-AICH-Information                                   ProtocolIE-ID ::= 320
id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD           ProtocolIE-ID ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD              ProtocolIE-ID ::= 323
id-CauseLevel-PSCH-ReconfFailure                         ProtocolIE-ID ::= 324
id-CauseLevel-RL-AdditionFailureFDD                      ProtocolIE-ID ::= 325
id-CauseLevel-RL-AdditionFailureTDD                      ProtocolIE-ID ::= 326
id-CauseLevel-RL-ReconfFailure                           ProtocolIE-ID ::= 327
id-CauseLevel-RL-SetupFailureFDD                         ProtocolIE-ID ::= 328
id-CauseLevel-RL-SetupFailureTDD                         ProtocolIE-ID ::= 329
id-CDCA-ICH-Information                                  ProtocolIE-ID ::= 330
id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD          ProtocolIE-ID ::= 332
id-Closed-Loop-Timing-Adjustment-Mode                    ProtocolIE-ID ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD          ProtocolIE-ID ::= 334
id-Compressed-Mode-Deactivation-Flag                     ProtocolIE-ID ::= 335
id-CPCH-Information                                      ProtocolIE-ID ::= 336
id-CPCH-Parameters-CTCH-SetupRsp                         ProtocolIE-ID ::= 342
id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD              ProtocolIE-ID ::= 343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD         ProtocolIE-ID ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD      ProtocolIE-ID ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD      ProtocolIE-ID ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD      ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD      ProtocolIE-ID ::= 351
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id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD              ProtocolIE-ID ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD          ProtocolIE-ID ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD       ProtocolIE-ID ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD       ProtocolIE-ID ::= 357
id-DL-TPC-Pattern01Count                                         ProtocolIE-ID ::= 358
id-DPC-Mode                                                      ProtocolIE-ID ::= 450
id-DPCHConstant                                                  ProtocolIE-ID ::= 359
id-DSCH-FDD-Common-Information                                   ProtocolIE-ID ::= 94
id-EnhancedDSCHPC                                                ProtocolIE-ID ::= 110
id-EnhancedDSCHPCIndicator                                       ProtocolIE-ID ::= 111
id-FACH-ParametersList-CTCH-SetupRsp                             ProtocolIE-ID ::= 362
id-Limited-power-increase-information-Cell-SetupRqstFDD          ProtocolIE-ID ::= 369
id-PCH-Parameters-CTCH-SetupRsp                                  ProtocolIE-ID ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD                         ProtocolIE-ID ::= 375
id-PCPCH-Information                                             ProtocolIE-ID ::= 376
id-PICH-ParametersItem-CTCH-ReconfRqstFDD                        ProtocolIE-ID ::= 380
id-PRACHConstant                                                 ProtocolIE-ID ::= 381
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD                     ProtocolIE-ID ::= 383
id-PUSCHConstant                                                 ProtocolIE-ID ::= 384
id-RACH-Parameters-CTCH-SetupRsp                                 ProtocolIE-ID ::= 385
id-SSDT-CellIDforEDSCHPC                                         ProtocolIE-ID ::= 443
id-Synchronisation-Configuration-Cell-ReconfRqst                 ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst                  ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information                 ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD              ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD              ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD              ProtocolIE-ID ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD              ProtocolIE-ID ::= 400
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD              ProtocolIE-ID ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD              ProtocolIE-ID ::= 402
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD                 ProtocolIE-ID ::= 403
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD          ProtocolIE-ID ::= 405
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD       ProtocolIE-ID ::= 406
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD       ProtocolIE-ID ::= 407
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD               ProtocolIE-ID ::= 408
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD               ProtocolIE-ID ::= 409
id-CommunicationContextInfoItem-Reset                            ProtocolIE-ID ::= 412
id-CommunicationControlPortInfoItem-Reset                        ProtocolIE-ID ::= 414
id-ResetIndicator                                                ProtocolIE-ID ::= 416
id-TFCI2-Bearer-Information-RL-SetupRqstFDD                      ProtocolIE-ID ::= 417
id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD              ProtocolIE-ID ::= 418
id-TFCI2-BearerInformationResponse                               ProtocolIE-ID ::= 419
id-TFCI2BearerRequestIndicator                                   ProtocolIE-ID ::= 142
id-TimingAdvanceApplied                                          ProtocolIE-ID ::= 287
id-CFNReportingIndicator                                         ProtocolIE-ID ::= 6
id-SFNReportingIndicator                                         ProtocolIE-ID ::= 11
id-InnerLoopDLPCStatus                                           ProtocolIE-ID ::= 12
id-TimeslotISCPInfo                                              ProtocolIE-ID ::= 283
id-PICH-ParametersItem-CTCH-SetupRqstTDD                         ProtocolIE-ID ::= 167
id-PRACH-ParametersItem-CTCH-SetupRqstTDD                        ProtocolIE-ID ::= 20
id-CCTrCH-InformationItem-RL-FailureInd                          ProtocolIE-ID ::= 46
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id-CCTrCH-InformationItem-RL-RestoreInd                              ProtocolIE-ID ::= 47
id-CauseLevel-SyncAdjustmntFailureTDD                                ProtocolIE-ID ::= 420
id-CellAdjustmentInfo-SyncAdjustmntRqstTDD                           ProtocolIE-ID ::= 421
id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD                      ProtocolIE-ID ::= 494
id-CellSyncBurstInfoList-CellSyncReconfRqstTDD                       ProtocolIE-ID ::= 482
id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD                  ProtocolIE-ID ::= 422
id-CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD                ProtocolIE-ID ::= 423
id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD           ProtocolIE-ID ::= 424
id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD            ProtocolIE-ID ::= 425
id-CellSyncBurstTransInfoList-CellSyncReconfRqstTDD                  ProtocolIE-ID ::= 426
id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD                   ProtocolIE-ID ::= 427
id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD                ProtocolIE-ID ::= 428
id-CellSyncInfo-CellSyncReprtTDD                                     ProtocolIE-ID ::= 429
id-CSBTransmissionID                                                 ProtocolIE-ID ::= 430
id-CSBMeasurementID                                                  ProtocolIE-ID ::= 431
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD                         ProtocolIE-ID ::= 432
id-NCyclesPerSFNperiod                                               ProtocolIE-ID ::= 433
id-NRepetitionsPerCyclePeriod                                        ProtocolIE-ID ::= 434
id-SyncFrameNumber                                                   ProtocolIE-ID ::= 437
id-SynchronisationReportType                                         ProtocolIE-ID ::= 438
id-SynchronisationReportCharacteristics                              ProtocolIE-ID ::= 439
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD     ProtocolIE-ID ::= 440
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD                     ProtocolIE-ID ::= 119
id-ReferenceClockAvailability                                        ProtocolIE-ID ::= 435
id-ReferenceSFNoffset                                                ProtocolIE-ID ::= 436
id-InformationExchangeID                                             ProtocolIE-ID ::= 444
id-InformationExchangeObjectType-InfEx-Rqst                          ProtocolIE-ID ::= 445
id-InformationType                                                   ProtocolIE-ID ::= 446
id-InformationReportCharacteristics                                  ProtocolIE-ID ::= 447
id-InformationExchangeObjectType-InfEx-Rsp                           ProtocolIE-ID ::= 448
id-InformationExchangeObjectType-InfEx-Rprt                          ProtocolIE-ID ::= 449
id-IPDLParameter-Information-Cell-ReconfRqstFDD                      ProtocolIE-ID ::= 451
id-IPDLParameter-Information-Cell-SetupRqstFDD                       ProtocolIE-ID ::= 452
id-IPDLParameter-Information-Cell-ReconfRqstTDD                      ProtocolIE-ID ::= 453
id-IPDLParameter-Information-Cell-SetupRqstTDD                       ProtocolIE-ID ::= 454
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD                           ProtocolIE-ID ::= 74
id-DwPCH-LCR-Information                                             ProtocolIE-ID ::= 78
id-DwPCH-LCR-InformationList-AuditRsp                                ProtocolIE-ID ::= 90
id-DwPCH-LCR-Information-Cell-SetupRqstTDD                           ProtocolIE-ID ::= 97
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD                          ProtocolIE-ID ::= 99
id-DwPCH-LCR-Information-ResourceStatusInd                           ProtocolIE-ID ::= 101
id-maxFACH-Power-LCR-CTCH-SetupRqstTDD                               ProtocolIE-ID ::= 154
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD                              ProtocolIE-ID ::= 174
id-FPACH-LCR-Information                                             ProtocolIE-ID ::= 290
id-FPACH-LCR-Information-AuditRsp                                    ProtocolIE-ID ::= 292
id-FPACH-LCR-InformationList-AuditRsp                                ProtocolIE-ID ::= 22
id-FPACH-LCR-InformationList-ResourceStatusInd                       ProtocolIE-ID ::= 311
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD                            ProtocolIE-ID ::= 312
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD                           ProtocolIE-ID ::= 314
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD                          ProtocolIE-ID ::= 456
id-PCH-Power-LCR-CTCH-SetupRqstTDD                                   ProtocolIE-ID ::= 457
id-PCH-Power-LCR-CTCH-ReconfRqstTDD                                  ProtocolIE-ID ::= 458
id-PICH-LCR-Parameters-CTCH-SetupRqstTDD                             ProtocolIE-ID ::= 459
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id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD                    ProtocolIE-ID ::= 461
id-RL-InformationResponse-LCR-RL-SetupRspTDD                     ProtocolIE-ID ::= 463
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD           ProtocolIE-ID ::= 465
id-TimeSlot                                                      ProtocolIE-ID ::= 495
id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD              ProtocolIE-ID ::= 466
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD               ProtocolIE-ID ::= 467
id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD                     ProtocolIE-ID ::= 468
id-TimeSlotLCR-CM-Rqst                                           ProtocolIE-ID ::= 469
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD                       ProtocolIE-ID ::= 470
id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD                ProtocolIE-ID ::= 472
id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD                ProtocolIE-ID ::= 473
id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD           ProtocolIE-ID ::= 474
id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD               ProtocolIE-ID ::= 475
id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD        ProtocolIE-ID ::= 477
id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ProtocolIE-ID ::= 479
id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD                        ProtocolIE-ID ::= 480
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD             ProtocolIE-ID ::= 481
id-UL-DPCH-LCR-InformationModify-AddList                         ProtocolIE-ID ::= 483
id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD                   ProtocolIE-ID ::= 485
id-UL-SIRTarget                                                  ProtocolIE-ID ::= 510
id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst                      ProtocolIE-ID ::= 486
id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst            ProtocolIE-ID ::= 487
id-PDSCH-Information-Cell-SetupRqstFDD                           ProtocolIE-ID ::=  26
id-PDSCH-Information-Cell-ReconfRqstFDD                          ProtocolIE-ID ::=  27
id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst                   ProtocolIE-ID ::= 488
id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst      ProtocolIE-ID ::= 489
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst                      ProtocolIE-ID ::= 490
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst            ProtocolIE-ID ::= 491
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst                   ProtocolIE-ID ::= 492
id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst      ProtocolIE-ID ::= 493
id-timeslotInfo-CellSyncInitiationRqstTDD                        ProtocolIE-ID ::= 496
id-SyncReportType-CellSyncReprtTDD                               ProtocolIE-ID ::= 497
id-Power-Local-Cell-Group-InformationItem-AuditRsp               ProtocolIE-ID ::= 498
id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd      ProtocolIE-ID ::= 499
id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd     ProtocolIE-ID ::= 500
id-Power-Local-Cell-Group-InformationList-AuditRsp               ProtocolIE-ID ::= 501
id-Power-Local-Cell-Group-InformationList-ResourceStatusInd      ProtocolIE-ID ::= 502
id-Power-Local-Cell-Group-InformationList2-ResourceStatusInd     ProtocolIE-ID ::= 503
id-Power-Local-Cell-Group-ID                                     ProtocolIE-ID ::= 504
id-PUSCH-Info-DM-Rqst                                            ProtocolIE-ID ::= 505
id-PUSCH-Info-DM-Rsp                                             ProtocolIE-ID ::= 506
id-PUSCH-Info-DM-Rprt                                            ProtocolIE-ID ::= 507
id-InitDL-Power                                                  ProtocolIE-ID ::= 509
id-cellSyncBurstRepetitionPeriod                                 ProtocolIE-ID ::= 511
id-ReportCharacteristicsType-OnModification                      ProtocolIE-ID ::= 512
id-SFNSFNMeasurementValueInformation                             ProtocolIE-ID ::= 513
id-SFNSFNMeasurementThresholdInformation                         ProtocolIE-ID ::= 514
id-TUTRANGPSMeasurementValueInformation                          ProtocolIE-ID ::= 515
id-TUTRANGPSMeasurementThresholdInformation                      ProtocolIE-ID ::= 516
id-Rx-Timing-Deviation-Value-LCR                                 ProtocolIE-ID ::= 520
id-RL-InformationResponse-LCR-RL-AdditionRspTDD                  ProtocolIE-ID ::= 51
id-DL-PowerBalancing-Information                                 ProtocolIE-ID ::= 28
id-DL-PowerBalancing-ActivationIndicator                         ProtocolIE-ID ::= 29
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id-DL-PowerBalancing-UpdatedIndicator                          ProtocolIE-ID ::= 30
id-CCTrCH-Initial-DL-Power-RL-SetupRqstTDD                     ProtocolIE-ID ::= 517
id-CCTrCH-Initial-DL-Power-RL-AdditionRqstTDD                  ProtocolIE-ID ::= 518
id-CCTrCH-Initial-DL-Power-RL-ReconfPrepTDD                    ProtocolIE-ID ::= 519
id-IPDLParameter-Information-LCR-Cell-SetupRqstTDD             ProtocolIE-ID ::= 41
id-IPDLParameter-Information-LCR-Cell-ReconfRqstTDD            ProtocolIE-ID ::= 42
id-HS-PDSCH-HS-SCCH-MaxPower-PSCH-ReconfRqst                   ProtocolIE-ID ::= 522
id-HS-PDSCH-HS-SCCH-ScramblingCode-PSCH-ReconfRqst             ProtocolIE-ID ::= 523
id-HS-PDSCH-FDD-Code-Information-PSCH-ReconfRqst               ProtocolIE-ID ::= 524
id-HS-SCCH-FDD-Code-Information-PSCH-ReconfRqst                ProtocolIE-ID ::= 525
id-HS-PDSCH-TDD-Information-PSCH-ReconfRqst                    ProtocolIE-ID ::= 526
id-Add-To-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                ProtocolIE-ID ::= 527
id-Modify-HS-SCCH-Resource-Pool-PSCH-ReconfRqst                ProtocolIE-ID ::= 528
id-Delete-From-HS-SCCH-Resource-Pool-PSCH-ReconfRqst           ProtocolIE-ID ::= 529
id-bindingID                                                   ProtocolIE-ID ::= 102
id-RL-Specific-DCH-Info                                        ProtocolIE-ID ::= 103
id-transportlayeraddress                                       ProtocolIE-ID ::= 104
id-DelayedActivation                                           ProtocolIE-ID ::= 231
id-DelayedActivationList-RL-ActivationCmdFDD                   ProtocolIE-ID ::= 232
id-DelayedActivationInformation-RL-ActivationCmdFDD            ProtocolIE-ID ::= 233
id-DelayedActivationList-RL-ActivationCmdTDD                   ProtocolIE-ID ::= 234
id-DelayedActivationInformation-RL-ActivationCmdTDD            ProtocolIE-ID ::= 235
id-neighbouringTDDCellMeasurementInformationLCR                ProtocolIE-ID ::= 58
id-SYNCDlCodeId-TransInitLCR-CellSyncInitiationRqstTDD         ProtocolIE-ID ::= 543
id-SYNCDlCodeId-MeasureInitLCR-CellSyncInitiationRqstTDD       ProtocolIE-ID ::= 544
id-SYNCDlCodeIdTransReconfInfoLCR-CellSyncReconfRqstTDD        ProtocolIE-ID ::= 545
id-SYNCDlCodeIdMeasReconfigurationLCR-CellSyncReconfRqstTDD    ProtocolIE-ID ::= 546
id-SYNCDlCodeIdMeasInfoList-CellSyncReconfRqstTDD              ProtocolIE-ID ::= 547
id-SyncDLCodeIdsMeasInfoList-CellSyncReprtTDD                  ProtocolIE-ID ::= 548
id-SyncDLCodeIdThreInfoLCR                                     ProtocolIE-ID ::= 549
id-NSubCyclesPerCyclePeriod-CellSyncReconfRqstTDD              ProtocolIE-ID ::= 550
id-DwPCH-Power                                                 ProtocolIE-ID ::= 551
id-AccumulatedClockupdate-CellSyncReprtTDD                     ProtocolIE-ID ::= 552
id-Angle-Of-Arrival-Value-LCR                                  ProtocolIE-ID ::= 521
id-HSDSCH-FDD-Information                                      ProtocolIE-ID ::= 530
id-HSDSCH-FDD-Information-Response                             ProtocolIE-ID ::= 531
id-HSDSCH-FDD-Information-to-Add                               ProtocolIE-ID ::= 532
id-HSDSCH-FDD-Information-to-Delete                            ProtocolIE-ID ::= 533
id-HSDSCH-Information-to-Modify                                ProtocolIE-ID ::= 534
id-HSDSCH-RNTI                                                 ProtocolIE-ID ::= 535
id-HSDSCH-TDD-Information                                      ProtocolIE-ID ::= 536
id-HSDSCH-TDD-Information-Response                             ProtocolIE-ID ::= 537
id-HSDSCH-TDD-Information-Response-LCR                         ProtocolIE-ID ::= 538
id-HSDSCH-TDD-Information-to-Add                               ProtocolIE-ID ::= 539
id-HSDSCH-TDD-Information-to-Delete                            ProtocolIE-ID ::= 540
id-HSPDSCH-RL-ID                                               ProtocolIE-ID ::= 541
id-PrimCCPCH-RSCP-DL-PC-RqstTDD                                ProtocolIE-ID ::= 542
id-Qth-Parameter                                               ProtocolIE-ID ::= 64
id-PDSCH-RL-ID                                                 ProtocolIE-ID ::= 66
id-HSDSCH-RearrangeList-Bearer-RearrangeInd                    ProtocolIE-ID ::= 553
id-UL-Synchronisation-Parameters-LCR                           ProtocolIE-ID ::= 554
id-HSDSCH-FDD-Update-Information                               ProtocolIE-ID ::= 555
id-HSDSCH-TDD-Update-Information                               ProtocolIE-ID ::= 556
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id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD          ProtocolIE-ID ::= 558
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD          ProtocolIE-ID ::= 559
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD                      ProtocolIE-ID ::= 560
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD                   ProtocolIE-ID ::= 561
id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD                     ProtocolIE-ID ::= 562
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD      ProtocolIE-ID ::= 563
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD   ProtocolIE-ID ::= 564
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD     ProtocolIE-ID ::= 565
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD        ProtocolIE-ID ::= 566
id-CCTrCH-Maximum-DL-Power-RL-SetupRqstTDD                         ProtocolIE-ID ::= 567
id-CCTrCH-Minimum-DL-Power-RL-SetupRqstTDD                         ProtocolIE-ID ::= 568
id-CCTrCH-Maximum-DL-Power-RL-AdditionRqstTDD                      ProtocolIE-ID ::= 569
id-CCTrCH-Minimum-DL-Power-RL-AdditionRqstTDD                      ProtocolIE-ID ::= 570
id-CCTrCH-Maximum-DL-Power-InformationAdd-RL-ReconfPrepTDD         ProtocolIE-ID ::= 571
id-CCTrCH-Minimum-DL-Power-InformationAdd-RL-ReconfPrepTDD         ProtocolIE-ID ::= 572
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfPrepTDD      ProtocolIE-ID ::= 573
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfPrepTDD      ProtocolIE-ID ::= 574
id-Maximum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD  ProtocolIE-ID ::= 575
id-Minimum-DL-Power-Modify-LCR-InformationModify-RL-ReconfPrepTDD  ProtocolIE-ID ::= 576
id-DL-DPCH-LCR-InformationModify-ModifyList-RL-ReconfRqstTDD       ProtocolIE-ID ::= 577
id-CCTrCH-Maximum-DL-Power-InformationModify-RL-ReconfRqstTDD      ProtocolIE-ID ::= 578
id-CCTrCH-Minimum-DL-Power-InformationModify-RL-ReconfRqstTDD      ProtocolIE-ID ::= 579
id-Initial-DL-Power-TimeslotLCR-InformationItem                    ProtocolIE-ID ::= 580
id-Maximum-DL-Power-TimeslotLCR-InformationItem                    ProtocolIE-ID ::= 581
id-Minimum-DL-Power-TimeslotLCR-InformationItem                    ProtocolIE-ID ::= 582
id-HS-DSCHProvidedBitRate                                          ProtocolIE-ID ::= 583
id-HS-DSCHProvidedBitRateValue                                     ProtocolIE-ID ::= 584
id-HS-DSCHRequiredPower                                            ProtocolIE-ID ::= 585
id-HS-DSCHRequiredPowerValue                                       ProtocolIE-ID ::= 586
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission ProtocolIE-ID ::= 587
id-HS-SICH-Reception-Quality                                       ProtocolIE-ID ::= 588
id-HS-SICH-Reception-Quality-Measurement-Value                     ProtocolIE-ID ::= 589
id-HSSICH-Info-DM-Rprt                                             ProtocolIE-ID ::= 590
id-HSSICH-Info-DM-Rqst                                             ProtocolIE-ID ::= 591
id-HSSICH-Info-DM-Rsp                                              ProtocolIE-ID ::= 592
id-Best-Cell-Portions-Value                                        ProtocolIE-ID ::= 593
id-Primary-CPICH-Usage-for-Channel-Estimation                      ProtocolIE-ID ::= 594
id-Secondary-CPICH-Information-Change                              ProtocolIE-ID ::= 595
id-NumberOfReportedCellPortion                                     ProtocolIE-ID ::= 596

END
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