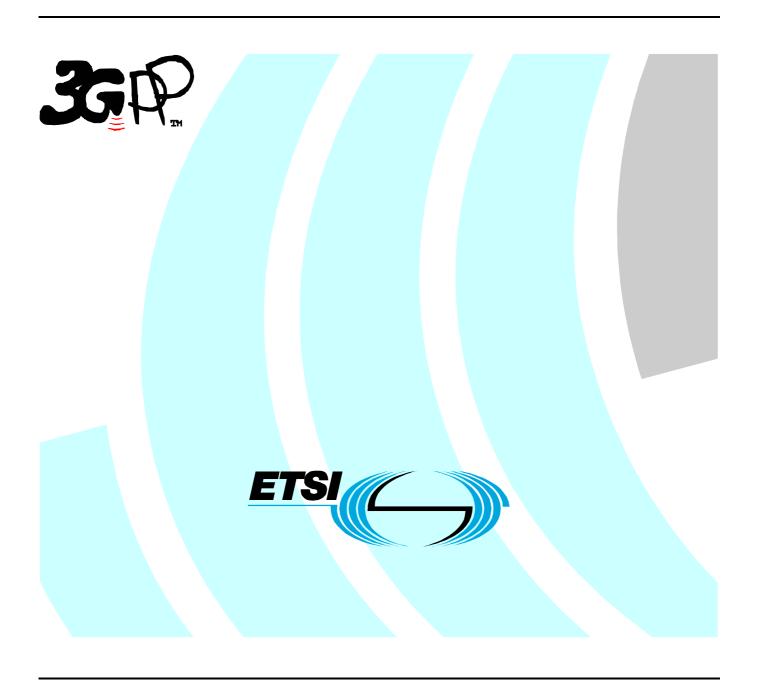
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# Foreword

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

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- x the first digit:
  - 1 presented to TSG for information;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
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# 1 Scope

[19]

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

# 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.
- [1] 3GPP TS 23.003: "Numbering, addressing and identification". [2] 3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling". 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for [3] DCH Data Streams". [4] 3GPP TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams". 3GPP TS 25.435: "UTRAN Iub interface User Plane Protocols for Common Transport Channel [5] Data Streams". [6] 3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception". [7] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception". [8] 3GPP TS 25.211: "Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD)". 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)". [9] [10] 3GPP TS 25.214: "Physical Layer Procedures (FDD)". 3GPP TS 25.215: "Physical Layer – Measurements (FDD)". [11] [12] 3GPP TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD)". 3GPP TS 25.223: "Spreading and Modulation (TDD)". [13] 3GPP TS 25.225: "Physical Layer - Measurements (TDD)". [14] 3GPP TS 25.304: "UE Procedures in Idle Mode" [15] [16] 3GPP TS 25.331: "RRC Protocol Specification". 3GPP TS 25.402: "Synchronisation in UTRAN, Stage 2". [17] ITU-T Recommendation X.680 (12/97): "Information technology - Abstract Syntax Notation One [18] (ASN.1): Specification of basic notation".

(ASN.1): Information object specification".

ITU-T Recommendation X.681 (12/97): "Information technology - Abstract Syntax Notation One

[20]	ITU-T Recommendation X.691 (12/97): "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".
[21]	3GPP TS 25.213: "Spreading and modulation (FDD)".
[22]	3GPP TS 25.224: "Physical Layer Procedures (TDD)".
[23]	3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".
[24]	3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".
[25]	3GPP TS 23.032: "Universal Graphical Area Description (GAD)".
[26]	3GPP TS 25.302: "Services Provided by the Physical Layer".
[27]	3GPP TS 25.213: "Spreading and modulation (FDD)".
[28]	3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".
[29]	GSM TS 05.05: "Digital cellular telecommunications system (Phase 2+); Radio transmission and reception".
[30]	ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".
[31]	RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".
[32]	3GPP TS 25.425: "UTRAN Iur and Iub Interface User Plane Protocols for Common Transport Channel data streams ".
[33]	IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification".
[34]	IETF RFC 768 "User Datagram Protocol", (8/1980)
[35]	3GPP TS 25.424: " UTRAN Iur Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".
[36]	3GPP TS 44.118: "Mobile radio interface layer 3 specification; Radio Resource Control (RRC) Protocol Iu mode".
[37]	3GPP TR 43.930: "Iur-g interface; Stage 2".
[38]	3GPP TS 48.008: "Mobile-services Switching Centre - Base Station System (MSC - BSS) interface; Layer 3 specification".
[39]	3GPP TS 43.051: "GSM/EGDE Radio Access Network; Overall description - Stage 2".
[40]	3GPP TS 25.401: "UTRAN Overall Description".
[41]	3GPP TS 25.321: "MAC protocol specification".
[42]	3GPP TS 25.306: "UE Radio Access capabilities".
[43]	3GPP TS 25.101: " User Equipment (UE) radio transmission and reception (FDD)".
[44]	IETF RFC 2474 "Definition of the Differentiated Services Field (DS Field) in the IPv4 and IPv6 Headers".
[45]	IETF RFC 2475 "An Architecture for Differentiated Services".
[46]	3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".

# 3 Definitions, Symbols and Abbreviations

### 3.1 Definitions

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

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

- Class 1: Elementary Procedures with response (success or failure);
- Class 2: Elementary Procedures without response.

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

#### Successful

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

#### Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

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

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

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

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

# 3.2 Symbols

Void.

### 3.3 Abbreviations

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

A-GPS Assisted-GPS

ALCAP Access Link Control Application Part
ASN.1 Abstract Syntax Notation One

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

CCCH Common Control Channel

CCPCH Common Control Physical Channel CCTrCH Coded Composite Transport Channel

CFN Connection Frame Number

C-ID Cell Identifier CM Compressed Mode CN Core Network

CPCH Common Packet Channel
CPICH Common Pilot Channel
CRNC Controlling RNC

DBSS Drift BSS

C-RNTI Cell Radio Network Temporary Identifier

CS Circuit Switched

CTFC Calculated Transport Format Combination DCH Dedicated Channel

DGPS Differential GPS DL Downlink

DPC Downlink Power Control

DPCCH Dedicated Physical Control Channel

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

DRNC Drift RNC DRNS Drift RNS

D-RNTI Drift Radio Network Temporary Identifier

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

EDSCHPC Enhanced Downlink Shared Channel Power Control

EP Elementary Procedure
FACH Forward Access Channel
FDD Frequency Division Duplex

FN Frame Number FP Frame Protocol

GERAN GSM EDGE Radio Access Network

GA Geographical Area

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

HSDPA High Speed Downlink Packet Access

HW Hardware

IB Information Block
ID Identity or Identifier
IE Information Element

IMSI International Mobile Subscriber Identity

IP Internet Protocol
IPDL Idle Period DownLink

ISCP Interference Signal Code Power

LAC Location Area Code

LCR Low Chip Rate (1.28 Mcps)

LCS Location Services
MAC Medium Access Control

MS Mobile Station
NAS Non Access Stratum
No Reference Noise
NRT Non Real Time

O&M Operation and Maintenance

P(-)CCPCH Primary CCPCH PCH Paging Channel

OTD Observed Time Difference

P(-)CPICH Primary CPICH

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

PDU Protocol Data Unit PhCH Physical Channel

PICH Paging Indication Channel Pos Position or Positioning

PRACH Physical Random Access Channel

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

RANAP Radio Access Network Application Part

RB Radio Bearer
RL Radio Link
RLC Redia Link

RLC Radio Link Control RLS Radio Link Set RM Rate Matching

RNC Radio Network Controller RNS Radio Network Subsystem

RNSAP Radio Network Subsystem Application Part RNTI Radio Network Temporary Identifier

RRC Radio Resource Control

RT Real Time

RSCP Received Signal Code Power

SBSS Serving BSS

Rx Receive or Reception

Sat Satellite

SCCP Signalling Connection Control Part

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

SDU Service Data Unit SF System Frame

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

SRNC Serving RNC SRNS Serving RNS

S-RNTI Serving Radio Network Temporary Identifier

SSDT Site Selection Diversity Transmission STTD Space Time Transmit Diversity

TDD Time Division Duplex

TF Transport Format

TFCI Transport Format Combination Indicator
TFCS Transport Format Combination Set

TFS Transport Format Set

TGCFN Transmission Gap Connection Frame Number

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

TPC Transmit Power Control TrCH Transport Channel

TS Time Slot

TSG Technical Specification Group

TSTD Time Switched Transmit Diversity
TTI Transmission Time Interval
TX Transmit or Transmission

UARFCN UTRA Absolute Radio Frequency Channel Number

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

UL Uplink

UMTS Universal Mobile Telecommunications System

URA UTRAN Registration Area

U-RNTI UTRAN Radio Network Temporary Identifier

USCH Uplink Shared Channel

UTRA Universal Terrestrial Radio Access

UTRAN Universal Terrestrial Radio Access Network

# 4 General

# 4.1 Procedure Specification Principles

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

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

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

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

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

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

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

# 4.2 Forwards and Backwards Compatibility

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

# 4.3 Source Signalling Address Handling

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

# 4.4 Specification Notations

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

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

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

# 5 RNSAP Services

### 5.1 RNSAP Procedure Modules

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

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

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

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

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

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

### 5.2 Parallel Transactions

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

# 6 Services Expected from Signalling Transport

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

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

# 7 Functions of RNSAP

The RNSAP protocol provides the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;
- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;
- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;
- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS;

- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;
- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;
- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;
- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;
- GERAN Signalling Transfer. This function allows the SBSS and DBSS, the SRNC and DBSS or the SBSS and DRNC to pass information between the UE/MS and the SRNC/SBSS on an SRB2/CCCH controlled by the DBSS/DRNC:
- Paging. This function allows the SRNC/SBSS to page a UE in a URA/GRA or a cell in the DRNS;
- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS (excluding DSCH resources for FDD);
- Relocation Execution. This function allows the SRNC/SBSS to finalise a Relocation previously prepared via other interfaces;
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- DL Power Timeslot Correction [TDD]. This function enables the DRNS to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Measurements on Common Resources. This function allows an RNC/BSS to request from another RNC/BSS to initiate measurements on Common Resources. The function also allows the requested RNC/BSS to report the result of the measurements.
- Information Exchange. This function allows an RNC to request from another RNC the transfer of information. The function also allows the requested RNC to report the requested information.
- Resetting the Iur. This function is used to completely or partly reset the Iur interface.

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

Table 1: Mapping between functions and RNSAP elementary procedures

Function	Elementary Procedure(s)
Radio Link Management	a) Radio Link Setup
	b) Radio Link Addition
	c) Radio Link Deletion
	d) Unsynchronised Radio Link Reconfiguration
	e) Synchronised Radio Link Reconfiguration
	Preparation f) Synchronised Radio Link Reconfiguration
	Commit
	g) Synchronised Radio Link Reconfiguration
	Cancellation
	h) Radio Link Pre-emptioni) Radio Link
	Activation
	j) Radio Link Parameter Update
Physical Channel Reconfiguration	Physical Channel Reconfiguration
Radio Link Supervision	a) Radio Link Failure
Communicated Made Control (FDD)	b) Radio Link Restoration
Compressed Mode Control [FDD]	a) Radio Link Setup b) Radio Link Addition
	c) Compressed Mode Command
	d) Unsynchronised Radio Link Reconfiguration
	e) Synchronised Radio Link Reconfiguration
	Preparation
	f) Synchronised Radio Link Reconfiguration
	Commit
	g) Synchronised Radio Link Reconfiguration
	Cancellation
Measurements on Dedicated Resources	a) Dedicated Measurement Initiation
	b) Dedicated Measurement Reporting c) Dedicated Measurement Termination
	d) Dedicated Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
DCH Rate Control	a) Radio Link Setup
	b) Radio Link Addition
	c) Unsynchronised Radio Link Reconfiguration
	d) Synchronised Radio Link Reconfiguration
	Preparation
000110: #: 7 (	e) Radio Link Congestion
CCCH Signalling Transfer	a) Uplink Signalling Transfer
GERAN Signalling Transfer	b) Downlink Signalling Transfer a) GERAN Uplink Signalling Transfer
GERAN Signalling Transfer	b) Downlink Signalling Transfer
Paging	Paging
Common Transport Channel Resources	a) Common Transport Channel Resources
Management	Initiation
	b) Common Transport Channel Resources
	Release
Relocation Execution	Relocation Commit
Reporting of General Error Situations	Error Indication
Measurements on Common Resources	a) Common Measurement Initiation
	b) Common Measurement Reporting
	c) Common Measurement Termination d) Common Measurement Failure
Information Exchange	a) Information Exchange Initiation
Information Exchange	b) Information Reporting
	c) Information Exchange Termination
	a) information Exchange Failure
DL Power Timeslot Correction [TDD]	d) Information Exchange Failure  Downlink Power Timeslot Control

# 7.1 RNSAP functions and elementary procedures for lur-g.

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

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

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

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

# 8 RNSAP Procedures

# 8.1 Elementary Procedures

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

**Table 2: Class 1 Elementary Procedures** 

Elementary	Initiating Message	Successful Outcome	Unsuccessful Outcome
Procedure		Response message	Response message
Radio Link Setup	RADIO LINK SETUP	RADIO LINK SETUP	RADIO LINK SETUP
	REQUEST	RESPONSE	FAILURE
Radio Link	RADIO LINK	RADIO LINK	RADIO LINK ADDITION
Addition	ADDITION REQUEST	ADDITION	FAILURE
		RESPONSE	
Radio Link	RADIO LINK	RADIO LINK	
Deletion	DELETION REQUEST	DELETION	
		RESPONSE	
Synchronised	RADIO LINK	RADIO LINK	RADIO LINK
Radio Link	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
Reconfiguration	PREPARE	READY	FAILURE
Preparation	DADIO I 1911/	DADIO I INU(	5.4510.1.1511/
Unsynchronised	RADIO LINK	RADIO LINK	RADIO LINK
Radio Link	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
Reconfiguration	REQUEST PHYSICAL CHANNEL	RESPONSE PHYSICAL CHANNEL	FAILURE PHYSICAL CHANNEL
Physical Channel Reconfiguration	RECONFIGURATION	RECONFIGURATION	
Reconliguration	REQUEST	COMMAND	RECONFIGURATION FAILURE
Dedicated	DEDICATED	DEDICATED	DEDICATED
Measurement	MEASUREMENT	MEASUREMENT	MEASUREMENT
Initiation	INITIATION REQUEST	INITIATION	INITIATION FAILURE
Initiation	INTERVIEW NEWSEST	RESPONSE	INTERIOR PROPERTY.
Common	COMMON	COMMON	COMMON TRANSPORT
Transport	TRANSPORT	TRANSPORT	CHANNEL RESOURCES
Channel	CHANNEL	CHANNEL	FAILURE
Resources	RESOURCES	RESOURCES	
Initialisation	REQUEST	RESPONSE	
Common	COMMON	COMMON	COMMON
Measurement	MEASUREMENT	MEASUREMENT	MEASUREMENT
Initiation	INITIATION REQUEST	INITIATION	INITIATION FAILURE
		RESPONSE	
Information	INFORMATION	INFORMATION	INFORMATION
Exchange	EXCHANGE	EXCHANGE	EXCHANGE INITIATION
Initiation	INITIATION REQUEST	INITIATION	FAILURE
		RESPONSE	
Reset	RESET REQUEST	RESET RESPONSE	

**Table 3: Class 2 Elementary Procedures** 

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

# 8.2 Basic Mobility Procedures

# 8.2.1 Uplink Signalling Transfer

### 8.2.1.1 General

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

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

### 8.2.1.2 Successful Operation

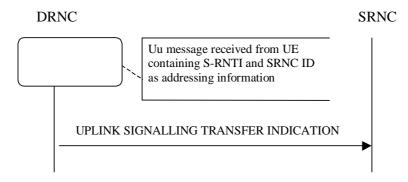


Figure 1: Uplink Signalling Transfer procedure, Successful Operation

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

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

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

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

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

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

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

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

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

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

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

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

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

#### 8.2.1.3 Abnormal Conditions

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### 8.2.1A GERAN Uplink Signalling Transfer

#### 8.2.1A.1 General

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

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

### 8.2.1A.2 Successful Operation

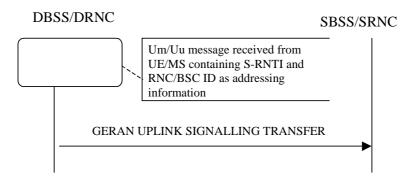


Figure 1A: GERAN Uplink Signalling Transfer procedure, Successful Operation

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

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

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

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

#### 8.2.1A.3 Abnormal Conditions

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### 8.2.2 Downlink Signalling Transfer

#### 8.2.2.1 General

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

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

### 8.2.2.1.1 Downlink Signalling Transfer for lur-g

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

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

#### 8.2.2.2 Successful Operation



Figure 2: Downlink Signalling Transfer procedure, Successful Operation

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

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

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

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

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

#### 8.2.2.2.1 Successful Operation for lur-g

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

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

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

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

#### 8.2.2.3 Abnormal Conditions

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

#### 8.2.2.3.1 Abnormal Conditions for lur-g

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

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

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

#### 8.2.3 Relocation Commit

#### 8.2.3.1 General

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

This procedure shall use the signalling bearer mode specified below.

#### 8.2.3.2 Successful Operation



Figure 3: Relocation Commit procedure, Successful Operation

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

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

### 8.2.3.2.1 Successful Operation for lur-g

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

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

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

#### 8.2.3.3 Abnormal Conditions

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## 8.2.4 Paging

#### 8.2.4.1 General

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

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

#### 8.2.4.2 Successful Operation



Figure 4: Paging procedure, Successful Operation

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

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

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

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

#### 8.2.4.2.1 Successful Operation for lur-g

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

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

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

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

### 8.2.4.3 Abnormal Conditions

#### 8.2.4.3.1 Abnormal Conditions for lur-g

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

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

### 8.3 DCH Procedures

### 8.3.1 Radio Link Setup

#### 8.3.1.1 General

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

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

### 8.3.1.2 Successful Operation

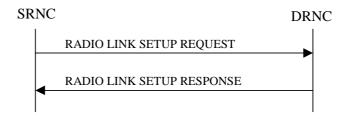


Figure 5: Radio Link Setup procedure: Successful Operation

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

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

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

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

#### **Transport Channels Handling:**

#### DCH(s):

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

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

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

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

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

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

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

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

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

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

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

If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the *TNL QoS* IE may be used by the DRNS to determine the transport bearer characteristics to apply in the uplink for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value 'RRC'.

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

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

# DSCH(s):

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

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

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

#### [TDD - USCH(s)]:

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

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

[TDD - If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message and contains the *TNL QoS* IE, and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply in the uplink for the related USCH.]

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

#### [TDD - CCTrCH Handling]:

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

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

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

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

# **HS-DSCH:**

If the HS-DSCH Information IE is present in the RADIO LINK SETUP REQUEST message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.
- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message.
- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.
- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for establishment of transport bearer for every HS-DSCH MAC-d flow being established.
- If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and *Binding ID* IE in the *HS-DSCH Information* IE for an HS-DSCH MAC-d flow, then the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the concerned HS-DSCH MAC-d flow.
- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.
- If the RADIO LINK SETUP REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then

the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK SETUP REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK SETUP RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- [FDD If the RADIO LINK SETUP REQUEST message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [FDD The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [TDD The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD HS-SCCH Specific Information Response IE] [1.28Mcps TDD HS-SCCH Specific Information Response LCR IE] in the HS-DSCH TDD Information Response IE in the RADIO LINK SETUP RESPONSE message.]
- [TDD The DRNC shall include the [3.84 Mcps TDD *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD *HS-PDSCH Timeslot Specific Information LCR* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

#### **Physical Channels Handling:**

# [FDD - Compressed Mode]:

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

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

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

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

## [FDD - DL Code Information]:

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

#### [FDD – Phase Reference Handling]:

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

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

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

#### General:

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

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

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

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

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

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

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

## **Radio Link Handling:**

#### **Diversity Combination Control:**

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

- If the *Diversity Control Field* IE is set to "May" (be combined with another RL), the DRNS shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL.

- If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

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

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

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

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

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

## [FDD -Transmit Diversity]:

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

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

# **DL Power Control:**

[FDD - If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constrains when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL except during compressed mode, when the  $\delta P_{curr}$ , 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 [3.84Mcps TDD -the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - the *DL Time Slot ISCP Info LCR* IE] is present, the DRNS should use the indicated value 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.]

[TDD - If the *Primary CCPCH RSCP Delta* IE is included, the DRNS should assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS should assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS should use the indicated value when deciding the Initial DL TX Power for the Radio Link.]

[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 lifetime 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<sub>init</sub>* shall be set to the power level indicated by the *Initial DL TX Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE.]

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

# **Neighbouring Cell Handling:**

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

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Mode1 Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE, the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE or the Neighbouring TDD Cell Information LCR IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE for the set to "Case1", the DRNC shall include the Time Slot For SCH IE in the Neighbouring TDD Cell Information IE. If the Neighbouring TDD Cell Information IE includes Sync Case IE set to "Case2", the DRNC shall include the SCH Time Slot IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK SETUP RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- If the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE
  message the DPC Mode Change Support Indicator IE for each neighbour cell in the Neighbouring FDD
  Cell Information IE
- [FDD The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports *Flexible Hard Split* mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionality listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.
- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise the *Restriction Statelindicator* IE may be absent. The DRNC shall include in the RADIO LINK SETUP RESPONSE message the *Restriction Statelindicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.
- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

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

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

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

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

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

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

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

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

#### General:

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

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

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

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity for EDSCHPC* IE, the DRNS shall activate enhanced DSCH power control, if supported, using the *SSDT Cell Identity for EDSCHPC* IE and *SSDT Cell Identity Length* IE as well as *Enhanced DSCH PC* IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both *SSDT Cell Identity* IE and *SSDT Cell Identity for EDSCHPC* IE, then the DRNS shall ignore the *SSDT Cell Identity for EDSCHPC* IE. If the enhanced DSCH power control is activated and the *TFCI PC Support Indicator* IE is set to "TFCI PC Mode 2 Supported", the primary/secondary status determination in the enhanced DSCH power control shall be applied to the TFCI power control in DSCH hard split mode.]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## [FDD - Radio Link Set Handling]:

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

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

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

[FDD -The UL oout-of-sync algorithm defined in ref. [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N\_OUTSYNC\_IND and T\_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N\_INSYNC\_IND that are configured in the cells supporting the radio links of the RL Set.]

#### **Response Message:**

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

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

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

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

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

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

# 8.3.1.3 Unsuccessful Operation

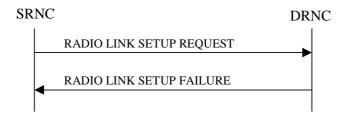


Figure 6: Radio Link Setup procedure: Unsuccessful Operation

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

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

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

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

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

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

Typical cause values are:

## **Radio Network Layer Causes:**

- [FDD UL Scrambling Code Already in Use];
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- [FDD Combining Resources not available];
- Combining not Supported
- Requested Configuration not Supported;
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Number of DL codes not supported;
- Number of UL codes not supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;
- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];
- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

#### **Transport Layer Causes:**

- Transport Resource Unavailable.

#### **Miscellaneous Causes:**

- Control Processing Overload;
- HW Failure;

- Not enough User Plane Processing Resources.

# 8.3.1.4 Abnormal Conditions

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

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

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

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

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

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

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

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

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

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

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes the *Length of TFC12* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

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

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

If the RADIO LINK SETUP REQUEST message includes an *HS-PDSCH RL-ID* IE not referring to one of the radio links to be established, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message contains the *HS-DSCH Information* IE and if the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

# 8.3.2 Radio Link Addition

# 8.3.2.1 General

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

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

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

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

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

# 8.3.2.2 Successful Operation

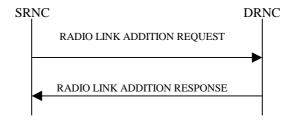


Figure 7: Radio Link Addition procedure: Successful Operation

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

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

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

#### **Transport Channel Handling:**

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

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

#### DSCH:

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

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

# [TDD - USCH:]

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

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

# **Physical Channels Handling:**

# [FDD -Compressed Mode]:

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

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

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

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

#### [TDD - CCTrCH Handling]:

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

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

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

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

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

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

# General:

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

## **Radio Link Handling:**

#### **Diversity Combination Control:**

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

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

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

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

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

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

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

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

# [FDD -Transmit Diversity]:

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

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

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

#### **DL Power Control:**

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

[TDD - If [3.84Mcps TDD - the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - the *DL Time Slot ISCP Info LCR* IE] is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use it in the calculation of the Initial DL TX Power.]

[TDD - If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS shall use it in the calculation of the Initial DL TX Power.]

[TDD - If the *Primary CCPCH RSCP* IE, *Primary CCPCH RSCP Delta* IE, [3.84Mcps TDD - and the *DL Time Slot ISCP Info* IE] [1.28Mcps TDD - and the *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]

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

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

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

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

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

# **UL Power Control:**

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

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

The DRNC shall provide the configured  $Maximum\ DL\ TX\ Power\ IE$  and  $Minimum\ DL\ TX\ Power\ IE$  for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the  $Maximum\ DL\ TX\ Power\ IE$  or lower than indicated by the  $Minimum\ DL\ TX\ Power\ IE$  on any DL DPCH of the RL [FDD - except during compressed mode, when the  $\delta P_{curr}$ , 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 power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the DL Reference Power IE, the DRNS shall activate the power balancing and use the DL Reference Power IE for the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, according to subclause 8.3.15. In this case, the DRNC shall include the DL Power Balancing Activation Indicator IE in the RL Information Response IE in the RADIO LINK ADDITION RESPONSE message. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing, i.e.  $P_{init}$  shall be set to the power level which is calculated based on the Primary CPICH Ec/No IE or the Enhanced Primary CPICH Ec/No IE (if received), or to the power level which is calculated based on the power relative to the Primary CPICH power used by the existing RLs.]

# **Neighbouring Cell Handling:**

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

- The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Mode1 Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE and the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE or the Neighbouring TDD Cell Information LCR IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE set to "Case1", the DRNC shall include the Time SlotFor SCH IE in the Neighbouring TDD Cell Information IE. If the Neighbouring TDD Cell Information IE includes the Sync Case IE set to "Case2", the DRNC shall include the SCH Time Slot IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include in the RADIO LINK ADDITION RESPONSE message the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- [FDD The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the *DPC Mode Change Support Indicator* IE for each neighbour cell in the *Neighbouring FDD Cell Information* IE if this information is available.]
- [FDD The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports Flexible Hard Split mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionality listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.
- For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise *Restriction State Indicator* IE may be absent. The DRNC shall include the *Restriction State Indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.
- If available, the DRNC shall include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

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

the *Neighbouring GSM Cell Information* IE. If available, the DRNC shall also include the *SNA Information* IE for the concerned neighbouring cells in the *Neighbouring GSM Cell Information* IE.

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

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

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

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

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

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

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

#### General:

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

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

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

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

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

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

[3.84Mcps TDD - The DRNC shall include the Secondary CCPCH Info TDD IE in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the Secondary CCPCH Info TDD IE in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the

message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

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

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

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

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

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

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

#### [FDD - Radio Link Set Handling]:

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

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

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

#### Response message:

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

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

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

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

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

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

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

# 8.3.2.3 Unsuccessful Operation

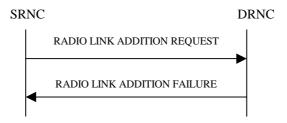


Figure 8: Radio Link Addition procedure: Unsuccessful Operation

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

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

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

Typical cause values are:

#### **Radio Network Layer Causes:**

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

#### **Transport Layer Causes:**

- Transport Resource Unavailable.

#### **Miscellaneous Causes:**

- Control Processing Overload;

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

# 8.3.2.4 Abnormal Conditions

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

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

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

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

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

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

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

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

# 8.3.3 Radio Link Deletion

#### 8.3.3.1 General

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

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

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

# 8.3.3.2 Successful Operation

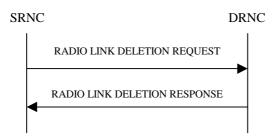


Figure 9: Radio Link Deletion procedure, Successful Operation

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

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

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

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

# 8.3.3.3 Unsuccessful Operation

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# 8.3.3.4 Abnormal Conditions

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

# 8.3.4 Synchronised Radio Link Reconfiguration Preparation

# 8.3.4.1 General

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

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

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

# 8.3.4.2 Successful Operation

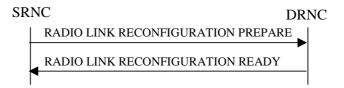


Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

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

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

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

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

#### **DCH Modification:**

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

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

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

#### **DCH Addition:**

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

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCH Information* IE includes a *DCHs To Add* IE with multiple *DCH Specific Info* IEs, the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only', the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.
- [TDD If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only', the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]
- [FDD For each DCH which do not belong to a set of co-ordinated DCHs and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4]. [TDD If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- The DRNS should store the *Traffic Class* IE received for a DCH to be added in the new configuration. The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value 'RRC'.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]
- [FDD If the *DRAC Control* IE is set to "requested" in the *DCH Specific Info* IE for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each radio link supported by a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- If the *DCHs To Add* IE contains a *DCH Specific Info* IE which includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs To Add* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCHs To Add* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.
- [TDD The DRNS shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]
- [TDD The DRNS shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

#### **DCH Deletion:**

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

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

#### **Physical Channel Modification:**

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

- [FDD If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink DPCCH *Slot Format* to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control when the new configuration is being used.]
- [FDD If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]
- [FDD If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the DRNS shall apply the values in the new configuration.]

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

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

- [FDD If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]
- [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes *Split Type* IE, then the DRNS shall apply this information to the new configuration of TFCI.]
- [FDD If the *DL DPCH Information* IE includes the *Length of TFCI2* IE, the DRNS shall apply this information to the length of TFCI(field 2) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or until the last Radio Link is deleted.]

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

# [TDD - UL/DL CCTrCH Modification]

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

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

#### [TDD - UL/DL CCTrCH Addition]

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

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

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

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

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

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

#### [TDD - UL/DL CCTrCH Deletion]

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

#### SSDT Activation/Deactivation:

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

#### **DL Power Control:**

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

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

# **DSCH Addition/Modification/Deletion:**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

# [TDD USCH Addition/Modification/Deletion]

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

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

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

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH To Add* IE, if the *TNL QoS* IE is included and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply for the related USCHs.]

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

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

- [TDD If the *USCH To Modify* IE includes any of the Allocation/Retention Priority IE, Scheduling Priority Indicator IE or TrCH Source Statistics Descriptor IE, the DNRS shall use them to update the set of USCH Priority classes.]
- [TDD If the *USCH To Modify* IE includes any of the *CCTrCH ID* IE, *Transport Format Set* IE, *BLER* IE or *RB Info* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD If the *USCHs To Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]
- [TDD if the *TNL QoS* IE is included and if ALCAP is not used, the DRNS may use the *TNL QoS* IE to determine the transport bearer characteristics to apply for the related USCHs.]
- [TDD The DRNC shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for any new transport bearer to be established for each modified USCH.]

#### **RL Information:**

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

#### **HS-DSCH Setup:**

If the HS-DSCH Information IE is present in the RADIO LINK RECONFIGURATION PREPARE message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.
- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message.
- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [FDD The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

- [FDD The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD HS-SCCH Specific Information Response IE] [1.28Mcps TDD HS-SCCH Specific Information Response IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

### **Intra-DRNS Serving HS-DSCH Radio Link Change:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

- The DRNS shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.
- The DRNC may include the *HARQ Memory Partitioning* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION READY message.
- The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION READY message.
- [FDD The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD HS-SCCH Specific Information Response IE] [1.28Mcps TDD HS-SCCH Specific Information Response IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD The DRNC shall include the [3.84 Mcps TDD *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD *HS-PDSCH Timeslot Specific Information LCR* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE message.]
- [FDD The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

#### **HS-DSCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE, then:

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE for each HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Traffic Class* IE in the *HS-DSCH Information To Modify* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Window Size* IE or *T1* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated values in the new configuration for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-d PDU Size Index* IE in the *Modify Priority Queue* choice, the DRNS shall delete the previous list of MAC-d PDU Size Index values for the related HSDPA Priority Queue and use the MAC-d PDU Size Index values indicated in the *MAC-d PDU Size Index* IE in the new configuration.
- [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes the *CQI Feedback Cycle k* IE, the *CQI Repetition Factor* IE, the *ACK-NACK Repetition Factor* IE, the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated CQI Feedback Cycle k value, the CQI Repetition Factor or the ACK-NACK Repetition Factor, ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]
- [FDD If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [TDD If the RADIO LINK RECONFIGURATION PREPARE message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify* IE, the DRNS shall use the indicated power offset in the new configuration.]
- [FDD If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH codes corresponding to the HS-DSCH. The DRNC shall then report the codes which are used in the new configuration specified in the *HS-SCCH Specific Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]
- [TDD If the *HS-DSCH Information To Modify* IE includes the *HS-SCCH Code Change Grant* IE, then the DRNS may modify the HS-SCCH parameters corresponding to the HS-DSCH. The DRNC shall then report the values for the parameters which are used in the new configuration specified in the [3.84Mcps TDD *HS-SCCH Specific Information Response* IE] [1.28Mcps TDD *HS-SCCH Specific Information Response LCR* IE] in the RADIO LINK RECONFIGURATION READY message.]

#### **HS-DSCH MAC-d Flow Addition/Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the UE Context, then the DRNC shall delete the HS-DSCH configuration from the UE Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.
- The DRNC shall include the *HS-DSH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION READY message for every HS-DSCH MAC-d flow being added, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- If the RADIO LINK RECONFIGURATION PREPARE message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

- If the RADIO LINK RECONFIGURATION PREPARE message includes the *Discard Timer* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- The DRNC may include the *HARQ Memory Partitioning* IE in the RADIO LINK RECONFIGURATION READY 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 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* IE, *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows 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 [3.84Mcps TDD - *DL Time Slot ISCP Info* IE][1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] is present, the DRNS should use the indicated values when deciding the Initial DL TX Power.]

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

that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS shall use the indicated values when deciding the Initial DL TX Power.]

# 8.3.4.3 Unsuccessful Operation

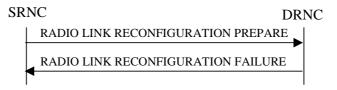


Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

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

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

Typical cause values are:

# **Radio Network Layer Causes:**

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

# **Miscellaneous Causes:**

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

# 8.3.4.4 Abnormal Conditions

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

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD - or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the DRNS shall reject the Synchronised Radio Link

Reconfiguration Preparation procedure and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

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

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

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

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

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

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

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

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

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

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Split Type* IE but includes the *Length of TFC12* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

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

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-DSCH Information To Modify* IE deleting the last remaining Priority Queue of an HS-DSCH MAC-d Flow, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the UE Context, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION PREPARE message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

# 8.3.5 Synchronised Radio Link Reconfiguration Commit

### 8.3.5.1 General

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

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

## 8.3.5.2 Successful Operation



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

The DRNS shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE (see ref.[17] subclause 9.4) when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.

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

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

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

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

### 8.3.5.3 Abnormal Conditions

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

# 8.3.6 Synchronised Radio Link Reconfiguration Cancellation

### 8.3.6.1 General

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

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

## 8.3.6.2 Successful Operation



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

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

### 8.3.6.3 Abnormal Conditions

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# 8.3.7 Unsynchronised Radio Link Reconfiguration

## 8.3.7.1 General

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

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

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

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

## 8.3.7.2 Successful Operation

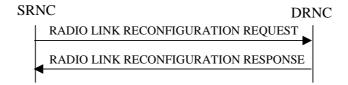


Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

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

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

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

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

#### **DCH Modification:**

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

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

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

### **DCH Addition:**

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

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCHs To Add* IE includes multiple DCH Specific Info IEs then the DRNS shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if all of them can be in the new configuration.
- If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Uplink DCH only', the DRNS shall ignore the *Transport Format Set* IE for the downlink for this DCH. As a consequence this DCH is not included as a part of the downlink CCTrCH.
- [TDD If the *DCH Specific Info* IE includes the *Unidirectional DCH Indicator* IE set to "Downlink DCH only', the DRNS shall ignore the *Transport Format Set* IE for the uplink for this DCH. As a consequence this DCH is not included as a part of the uplink CCTrCH.]
- [FDD For each DCH which does not belong to a set of co-ordinated DCHs, and which includes a *QE-Selector* IE set to "selected", the DRNS shall use the Transport channel BER from that DCH for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If the *QE-Selector* IE is set to "non-selected", the DRNS shall use the Physical channel BER for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs, the DRNS shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" for the QE in the UL data frames, ref. [4]. [FDD If no Transport channel BER is available for the selected DCH, the DRNS shall use the Physical channel BER for the QE, ref. [4]. If all DCHs have the *QE-Selector* IE set to "non-selected", the DRNS shall use the Physical channel BER for the QE, ref. [4].] [TDD If no Transport channel BER is available for the selected DCH, the DRNS shall use 0 for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the DRNS once the new configuration has been activated.
- The *Traffic Class* IE may be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs. The DRNC should ignore the *Traffic Class* IE if the *TrCH Source Statistics Descriptor* IE indicates the value 'RRC'.
- If the *TNL QoS* IE is included for a DCH or a set of co-ordinated DCHs and if ALCAP is not used, the DRNS may use this information to determine the transport bearer characteristics to apply for the uplink for the related DCH or set of co-ordinated DCHs.

- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Startpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Endpoint in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [FDD If the *DRAC Control* IE is set to "requested" in *DCH Specific Info* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH in which the DRAC information is sent, for each Radio Link supported by a cell in which DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

### **DCH Deletion:**

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

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

### [FDD - Physical Channel Modification:]

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

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

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

- [FDD If the *DL DPCH Information* IE includes the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE for the DL, the DRNS shall apply the new TFCI Signalling Mode in the Downlink of the new configuration.]

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

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration. Any Transmission Gap Pattern Sequences already existing in the previous Compressed Mode Configuration are replaced by the new sequences once the new Compressed Mode Configuration has been activated. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

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

### [TDD - UL/DL CCTrCH Modification]

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

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

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

## [TDD - UL/DL CCTrCH Deletion]

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

### **DL Power Control:**

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

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

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

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

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

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

### [FDD – Phase Reference Handling]:

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

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

#### **HS-DSCH Setup:**

If the HS-DSCH Information IE is present in the RADIO LINK RECONFIGURATION REQUEST message, then:

- The DRNS shall setup the requested HS-PDSCH resources on the Serving HS-DSCH Radio Link indicated by the *HS-PDSCH RL ID* IE.
- The DRNC shall include the *HARQ Memory Partitioning* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message.
- The DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION RESPONSE message.
- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE for a Priority Queue in the *HS-DSCH MAC-d Flows Information* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being established, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes the *HS-SCCH Power Offset* IE in the *HS-DSCH Information* IE, then the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [FDD The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD HS-SCCH Specific Information Response IE] [1.28Mcps TDD HS-SCCH Specific Information Response IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

### **Intra-DRNS Serving HS-DSCH Radio Link Change:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL ID* IE, this indicates the new Serving HS-DSCH Radio Link:

The DRNS shall release the HS-PDSCH resources on the old Serving HS-DSCH Radio Link and setup the HS-PDSCH resources on the new Serving HS-DSCH Radio Link.

- The DRNC may include the *HARQ Memory Partitioning* IE in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD Information Response* IE] in the RADIO LINK RECONFIGURATION RESPONSE message.
- The DRNC shall allocate a new HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION RESPONSE message.
- If a reset of the MAC-hs is not required the DRNS shall include the *MAC-hs Reset Indicator* IE in the RADIO LINK RECONFIGURATION RESPONSE message.
- [FDD The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD The DRNS shall allocate HS-SCCH codes corresponding to the HS-DSCH and the DRNC shall include the *HS-SCCH Specific Information Response* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD The DRNS shall allocate HS-SCCH parameters corresponding to the HS-DSCH and the DRNC shall include the [3.84Mcps TDD HS-SCCH Specific Information Response IE] [1.28Mcps TDD HS-SCCH Specific Information Response IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD The DRNC shall include the [3.84 Mcps TDD *HS-PDSCH Timeslot Specific Information* IE] [1.28 Mcps TDD *HS-PDSCH Timeslot Specific Information LCR* IE] in the *HS-DSCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [FDD The DRNC shall include the *HS-PDSCH And HS-SCCH Scrambling Code* IE in the *HS-DSCH FDD Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

#### **HS-DSCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information To Modify Unsynchronised* IE, then:

- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE for each HS-DSCH MAC-d flow being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Traffic Class* IE in the *HS-DSCH Information To Modify Unsynchronised* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Discard Timer* IE in the *HS-DSCH Information* IE, then the DRNS shall use this information to discard out-of-date MAC-hs SDUs from the related HSDPA Priority Queue.
- [FDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *ACK Power Offset* IE, the *NACK Power Offset* IE or the *CQI Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, then the DRNS shall use the indicated ACK Power Offset, the NACK Power Offset or the CQI Power Offset in the new configuration.]
- [FDD If the *HS-SCCH Power Offset* IE is included in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS may use this value to determine the HS-SCCH power. The HS-SCCH Power Offset should be applied for any HS-SCCH transmission to this UE.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *TDD ACK NACK Power Offset* IE in the *HS-DSCH Information To Modify Unsynchronised* IE, the DRNS shall use the indicated power offset in the new configuration.]

### **HS-DSCH MAC-d Flow Addition/Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *HS-DSCH MAC-d Flows To Add* or *HS-DSCH MAC-d Flows To Delete* IEs, then the DRNS shall use this information to add/delete the indicated HS-DSCH MAC-d flows on the Serving HS-DSCH Radio Link. When an HS-DSCH MAC-d flow is deleted, all its associated Priority Queues shall also be removed.

If the RADIO LINK RECONFIGURATION REQUEST message includes an *HS-DSCH MAC-d Flows To Delete* IE requesting the deletion of all remaining HS-DSCH MAC-d flows for the UE Context, then the DRNC shall delete the HS-DSCH configuration from the UE Context and release the HS-PDSCH resources.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH MAC-d Flows To Add* IE, then:

- The DRNS may use the *Traffic Class* IE for a specific HS-DSCH MAC-d flow to determine the transport bearer characteristics to apply between DRNC and Node B.
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *Traffic Class* IE in the *HS-DSCH MAC-d Flows To Add* IE for a specific HS-DSCH MAC-d flow, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B.
- The DRNC shall include the *HS-DSCH Initial Capacity Allocation* IE in the RADIO LINK RECONFIGURATION RESPONSE message for every HS-DSCH MAC-d flow being added, if the DRNS allows the SRNC to start transmission of MAC-d PDUs before the DRNS has allocated capacity on user plane as described in [32].
- If the RADIO LINK RECONFIGURATION REQUEST message includes the *MAC-hs Guaranteed Bit Rate* IE in the *HS-DSCH MAC-d Flows To Add* IE, the DRNS shall use this information to optimise MAC-hs scheduling decisions for the related HSDPA Priority Queue.

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

### 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, *HS-DSCH Information* IE, *HS-DSCH Information To Modify Unsynchronised* IE or *HS-DSCH MAC-d Flows To Add* 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 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 the *Transport Layer Address* IE and the *Binding ID* IE in the RADIO LINK RECONFIGURATION RESPONSE message 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 detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1.

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

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

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

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

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

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

## 8.3.7.3 Unsuccessful Operation

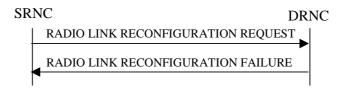


Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

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

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

Typical cause values are:

### **Radio Network Layer Causes:**

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

#### **Miscellaneous Causes:**

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

### 8.3.7.4 Abnormal Conditions

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

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

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

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

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

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

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

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE or *HS-DSCH MAC-d Flows To Delete* IE in addition to the *HS-DSCH Information* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information To Modify* IE, *HS-DSCH MAC-d Flows To Add* IE, *HS-DSCH MAC-d Flows To Delete* IE or *HS-PDSCH RL ID* IE and the Serving HS-DSCH Radio Link is not in the DRNS, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-DSCH Information* IE and does not include the *HS-PDSCH RL-ID* IE, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *HS-PDSCH RL-ID* IE indicating a Radio Link not existing in the UE Context, the DRNS shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message contains any of the *HS-DSCH Information* IE, *HS-DSCH Information To Modify* IE, or *HS-DSCH MAC-d Flows To Add* IE and if in the new configuration the Priority Queues associated with the same *HS-DSCH MAC-d Flow ID* IE have the same *Scheduling Priority Indicator* IE value, the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

# 8.3.8 Physical Channel Reconfiguration

### 8.3.8.1 General

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

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

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

## 8.3.8.2 Successful Operation

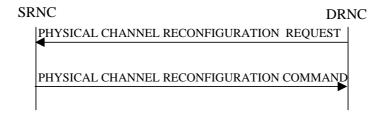


Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

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

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

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

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

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

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

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

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

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

## 8.3.8.3 Unsuccessful Operation

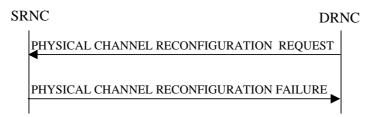


Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

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

Typical cause values are:

#### **Radio Network Layer Causes:**

Reconfiguration not Allowed.

### 8.3.8.4 Abnormal Conditions

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

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

### 8.3.9 Radio Link Failure

## 8.3.9.1 General

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

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

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

## 8.3.9.2 Successful Operation

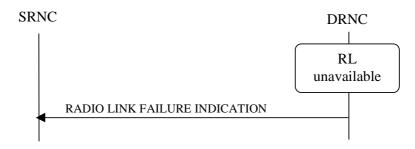


Figure 18: Radio Link Failure procedure, Successful Operation

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

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

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

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

Typical cause values are:

### **Radio Network Layer Causes:**

- Synchronisation Failure;
- Invalid CM Settings.

### **Transport Layer Causes:**

- Transport Resources Unavailable.

### **Miscellaneous Causes:**

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

### 8.3.9.3 Abnormal Conditions

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## 8.3.10 Radio Link Restoration

### 8.3.10.1 General

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

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

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

## 8.3.10.2 Successful Operation



Figure 19: Radio Link Restoration procedure, Successful Operation

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

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

### 8.3.10.3 Abnormal Conditions

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# 8.3.11 Dedicated Measurement Initiation

## 8.3.11.1 General

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

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

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

## 8.3.11.2 Successful Operation

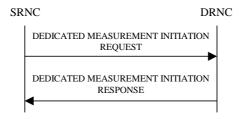


Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

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

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

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

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

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

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

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

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

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

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

## Report characteristics

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

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

If the *Report Characteristics* IE is set to "Periodic" and if the *CFN* IE is not provided, the DRNS shall immediately and periodically initiate the Dedicated Measurement Reporting procedure for this measurement, with a frequency as

specified by the *Report Periodicity* IE. If the *CFN* IE is provided, the DRNS shall initiate a Dedicated Measurement Reporting procedure for this measurement at the CFN indicated in the *CFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26].

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

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

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

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

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

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

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

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

#### **Higher laver filtering**

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows:

 $F_n$  is the updated filtered measurement result

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

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

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

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

#### Response message

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

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

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

## 8.3.11.3 Unsuccessful Operation

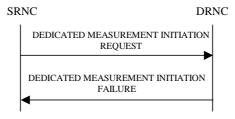


Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

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

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

For the unsuccessful measurement initiations, the DRNS shall include the *Individual Cause* IE set to an appropriate value if it differs from the value of the *Cause* IE.

Typical cause values are:

### **Radio Network Layer Causes:**

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

### **Miscellaneous Causes:**

- Control Processing Overload
- HW Failure

### 8.3.11.4 Abnormal Conditions

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

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

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

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

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

# 8.3.12 Dedicated Measurement Reporting

## 8.3.12.1 General

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

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

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

## 8.3.12.2 Successful Operation



Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

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

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

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

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

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

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

### 8.3.12.3 Abnormal Conditions

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# 8.3.13 Dedicated Measurement Termination

## 8.3.13.1 General

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

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

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

## 8.3.13.2 Successful Operation



Figure 23: Dedicated Measurement Termination procedure, Successful Operation

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

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

### 8.3.13.3 Abnormal Conditions

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## 8.3.14 Dedicated Measurement Failure

### 8.3.14.1 General

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

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

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

## 8.3.14.2 Successful Operation



Figure 24: Dedicated Measurement Failure procedure, Successful Operation

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

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

Typical cause values are:

## **Miscellaneous Causes:**

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

### 8.3.14.3 Abnormal Conditions

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# 8.3.15 Downlink Power Control [FDD]

## 8.3.15.1 General

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

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

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

## 8.3.15.2 Successful Operation



Figure 25: Downlink Power Control procedure, Successful Operation

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

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

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

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

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

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

### **Power Adjustment**

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

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

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

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

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

### 8.3.15.3 Abnormal Conditions

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# 8.3.16 Compressed Mode Command [FDD]

### 8.3.16.1 General

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

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

## 8.3.16.2 Successful Operation



Figure 26: Compressed Mode Command procedure, Successful Operation

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

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

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

### 8.3.16.3 Abnormal Conditions

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# 8.3.17 Downlink Power Timeslot Control [TDD]

### 8.3.17.1 General

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

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

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

## 8.3.17.2 Successful Operation



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

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

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

If the *Primary CCPCH RSCP Delta* IE is included, the DRNS shall assume that the reported value for Primary CCPCH RSCP is in the negative range as per [24], and the value is equal to the *Primary CCPCH RSCP Delta* IE. If the *Primary CCPCH RSCP Delta* IE is not included and the *Primary CCPCH RSCP* IE is included, the DRNS shall assume that the reported value is in the non-negative range as per [24], and the value is equal to the *Primary CCPCH RSCP* IE. The DRNS should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

### 8.3.17.3 Abnormal Conditions

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# 8.3.18 Radio Link Pre-emption

### 8.3.18.1 General

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

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

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

## 8.3.18.2 Successful Operation

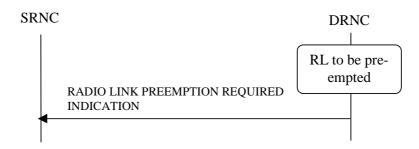


Figure 26B: Radio Link Pre-emption procedure, Successful Operation

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

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

### 8.3.18.3 Abnormal Conditions

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# 8.3.19 Radio Link Congestion

## 8.3.19.1 General

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

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

### 8.3.19.2 Successful Operation



Figure 26C: Radio Link Congestion procedure, Successful Operation

## Start of an UL/DL Resource Congestion Situation

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

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

### Change of UL/DL Resource Congestion Situation

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

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

### **End of UL/DL Resource Congestion Situation**

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

### 8.3.19.3 Abnormal Conditions

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## 8.3.20 Radio Link Activation

### 8.3.20.1 General

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

### 8.3.20.2 Successful Operation



Figure 26D: Radio Link Activation procedure

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

Upon receipt, the DRNS shall for each concerned RL:

- if the *Delayed Activation Update* IE indicates "Activate":
  - if the *Activation Type* IE equals "Unsynchronised":
    - [FDD start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4].]
    - [TDD start transmission on the new RL immediately as specified in [4].]
  - if the *Activation Type* IE equals "Synchronised":
    - [FDD start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4], however never before the CFN indicated in the *Activation CFN* IE.]

- [TDD start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [4].]
- [FDD the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see 8.3.7).]
- [TDD the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]
- [FDD if the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]
- [FDD if the *First RLS Indicator* IE is included, it indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]
- if the Delayed Activation Update IE indicates "Deactivate":
  - stop DL transmission immediately if the Deactivation Type IE equals "Unsynchronised", or at the CFN indicated by the Deactivation CFN IE if the Deactivation Type IE equals "Synchronised".

## 8.3.20.3 Abnormal Conditions

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

# 8.3.21 Radio Link Parameter Update

### 8.3.21.1 General

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

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

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

## 8.3.21.2 Successful Operation



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

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

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

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

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

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

[FDD - If the DRNS needs to update the CQI Feedback 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 Feedback Cycle k* IE, *CQI Repetition Factor* IE, *ACK-NACK Repetition Factor* IE, *CQI Power Offset* IE, *ACK Power Offset* IE and/or *NACK Power Offset* IE.]

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

### [FDD – Phase Reference Handling]:

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

### 8.3.21.3 Abnormal Conditions

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# 8.4 Common Transport Channel Procedures

# 8.4.1 Common Transport Channel Resources Initialisation

## 8.4.1.1 General

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

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

# 8.4.1.2 Successful Operation

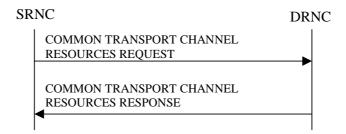


Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation

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

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

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

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

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

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

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

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

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

## 8.4.1.3 Unsuccessful Operation

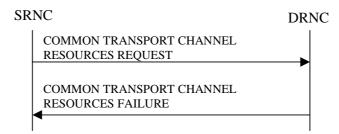


Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

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

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

Typical cause values are:

### Radio Network Layer Causes:

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

#### **Transport Layer Causes:**

- Transport Resource Unavailable.

## 8.4.1.4 Abnormal Conditions

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

# 8.4.2 Common Transport Channel Resources Release

### 8.4.2.1 General

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

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

# 8.4.2.2 Successful Operation



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

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

### 8.4.2.3 Abnormal Conditions

# 8.5 Global Procedures

## 8.5.1 Error Indication

## 8.5.1.1 General

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

This procedure shall use the signalling bearer mode specified below.

## 8.5.1.2 Successful Operation

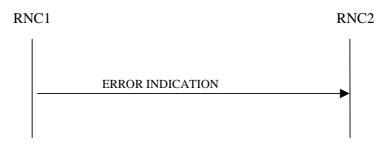


Figure 30: Error Indication procedure, Successful Operation

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

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

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

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

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

Typical cause values for the ERROR INDICATION message are:

### **Protocol Causes:**

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

### 8.5.1.2.1 Successful Operation for lur-g

The RNC<sub>1</sub>/BSS<sub>1</sub> and RNC<sub>2</sub>/BSS<sub>2</sub> shall use the error indication procedure as specified in section 8.5.1.2.

## 8.5.1.3 Abnormal Conditions

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## 8.5.2 Common Measurement Initiation

### 8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC<sub>1</sub> and the RNC to which the request is sent is referred to as RNC<sub>2</sub>.

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

## 8.5.2.2 Successful Operation

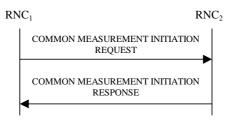


Figure 30A: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC<sub>1</sub> to the RNC<sub>2</sub>.

Upon receipt, the RNC<sub>2</sub> shall initiate the requested measurement according to the parameters given in the request.

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

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

### Common measurement type

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

- The RNC<sub>2</sub> shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by the *Reference Cell Identifier* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-ID*) in the *Neighbouring Cell Measurement Information* IE.
- [3.84 Mcps TDD The RNC<sub>2</sub> shall perform the measurement using the time slot specified in the *Time Slot* IE in the *Neighbouring TDD Cell Measurement Information* IE and using the midamble shift and burst type specified in the *Midamble Shift And Burst Type* IE in the *Neighbouring TDD Cell Measurement Information* IE, If *Time Slot* IE and *Midamble Shift And Burst Type* IE are not available in the *Neighbouring TDD Cell Measurement Information* IE, the RNC<sub>2</sub> may use any appropriate time slots, midamble shifts and burst types to make the measurement.]

If the *Common Measurement Type* IE is set to "load", the RNC<sub>2</sub> shall initiate measurements of uplink and downlink load on the measured object identified by the *Reference Cell Identifier* IE. If either uplink or downlink load satisfies the requested report characteristics, the RNC<sub>2</sub> shall report the result of both uplink and downlink measurements.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", "transmitted carrier power", "received total wide band power", or "UL timeslot ISCP" the  $RNC_2$  shall initiate measurements on the measured object identified by the Reference Cell Identifier IE.

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

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

#### Report characteristics

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

If the *Report Characteristics* IE is set to "On Demand" and if the *SFN* IE is not provided, the RNC<sub>2</sub> shall report the result of the requested measurement immediately in the COMMON MEASUREMENT INITIATION RESPONSE message. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Periodic" and if the *SFN* IE is not provided, the RNC<sub>2</sub> shall immediately and periodically initiate a Common Measurement Reporting procedure for this measurement, with a frequency as specified by the *Report Periodicity* IE. If the *SFN* IE is provided, the RNC<sub>2</sub> shall initiate a Common Measurement Reporting procedure for this measurement at the SFN indicated in the *SFN* IE, and shall repeat this initiation periodically thereafter with a frequency as specified by the *Report Periodicity* IE. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE.

If the *Report Characteristics* IE is set to "Event A", the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold, as specified by the *Measurement Threshold* IE, and then stays above the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC<sub>2</sub> shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE, and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC<sub>2</sub> shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure when the measured entity rises more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this rise occurs within the requested rising time specified by the *Measurement Change Time* IE. After reporting this type of event, the RNC<sub>2</sub> shall not initiate the next C event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

If the *Report Characteristics* IE is set to "Event D", the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure when the measured entity falls more than the requested threshold specified by the *Measurement Increase/Decrease Threshold* IE, and only when this fall occurs within the requested falling time specified by the *Measurement Change Time* IE. After reporting this type of event,, the RNC<sub>2</sub> shall not initiate the next D event reporting for the same measurement during the subsequent time specified by the *Measurement Change Time* IE.

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

rises above the *Measurement Threshold 2* IE and stays above the threshold for the *Measurement Hysteresis Time* IE, the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure (Report B) and shall terminate any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the RNC<sub>2</sub> shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the RNC<sub>2</sub> shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the RNC<sub>2</sub> shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the first measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the *Reference Cell Identifier* IE. Following the first measurement report, the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

- 1. If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":
  - If the  $T_{UTRAN-GPS}$  Change Limit IE is included in the  $T_{UTRAN-GPS}$  Measurement Threshold Information IE, the RNC<sub>2</sub> shall calculate the change of  $T_{UTRAN-GPS}$  value ( $F_n$ ) each time a new measurement result is received after point C in the measurement model [25]. The RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of  $F_n$  rises above the threshold indicated by the  $T_{UTRAN-GPS}$  Change Limit IE. The change of  $T_{UTRAN-GPS}$  value ( $F_n$ ) is calculated according to the following:

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

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

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

 $M_n$  is the latest measurement result received after point C in the measurement model [25], measured at SFN<sub>n</sub>.

 $M_{n-1}$  is the previous measurement result received after point C in the measurement model [25], measured at SFN<sub>n-1</sub>.

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

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

- If the Predicted T<sub>UTRAN-GPS</sub> Deviation Limit IE is included in the T<sub>UTRAN-GPS</sub> Measurement Threshold Information IE, the RNC<sub>2</sub> shall update the P<sub>n</sub> and F each time a new measurement result is received after point C in the measurement model [25]. The RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure and set n equal to zero when F<sub>n</sub> rises above the threshold indicated by the Predicted T<sub>UTRAN-GPS</sub> Deviation Limit IE. The P<sub>n</sub> and F<sub>n</sub> are calculated according to the following:

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

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

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

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

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

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

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

 $M_n$  is the latest measurement result received after point C in the measurement model [25, measured at SFN<sub>n</sub>

 $M_1$  is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

The  $T_{UTRAN-GPS}$  Drift Rate is determined by the RNS<sub>2</sub> in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

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

```
F_n = 0 for n = 0

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

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

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

a is the last reported SFN-SFN.

 $M_n$  is the latest measurement result received after point C in the measurement model [25], measured at SFN<sub>n</sub>.

 $M_1$  is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the RNC<sub>2</sub> shall each time a new measurement result is received after point C in the measurement model [25], update the P<sub>n</sub> and F<sub>n</sub>. The RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F<sub>n</sub> rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The P<sub>n</sub> and F<sub>n</sub> are calculated according to the following:

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

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

a is the last reported SFN-SFN Drift Rate value.

b is the last reported SFN-SFN value.

 $F_n$  is the deviation of the last measurement result from the predicted SFN-SFN value ( $P_n$ ) when n measurements have been received after first Common Measurement Reporting at initiation or after the last event was triggered.

 $M_n$  is the latest measurement result received after point C in the measurement model [25], measured at the [TDD - the Time Slot TS<sub>n</sub> of] the Frame SFN<sub>n</sub>.

 $M_1$  is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the RNS<sub>2</sub> in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

If the *Report Characteristics* IE is not set to "On Demand", the RNC<sub>2</sub> is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more, the RNC<sub>2</sub> shall terminate the measurement locally without reporting this to RNC<sub>1</sub>.

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 RNC<sub>2</sub> shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

#### Common measurement accuracy

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC<sub>2</sub> shall use the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE included in the *Report Characteristics* IE according to the following:.

- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class A", then the concerned RNC<sub>2</sub> shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates the "Class B", then the concerned RNC<sub>2</sub> shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class C", then the concerned RNC<sub>2</sub> shall perform the measurements with the highest supported accuracy according to class C.
- If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the concerned RNC<sub>2</sub> shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

#### Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

 $F_n$  is the updated filtered measurement result

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

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

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

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

#### Response message

If the RNC<sub>2</sub> was able to initiate the measurement requested by RNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message.

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

- The COMMON MEASUREMENT INITIATION RESPONSE message shall include the *Common Measurement Object Type* IE containing the measurement result. It shall also include the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE positioning".

- If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and if the *SFN Reporting Indicator* IE is set to "FN Reporting Required", then the RNC<sub>2</sub> shall include the *SFN* IE in the COMMON MEASUREMENT INITIATION RESPONSE message,. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.
- If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then the RNC<sub>2</sub> shall report all the available measurements in the Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE, and the RNC<sub>2</sub> shall report the neighbouring cells with no measurement result available in the Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE. For all available measurement results, the RNC<sub>2</sub> shall include in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the RNC<sub>2</sub> shall include in the  $T_{UTRAN-GPS}$  *Measurement Value Information* IE the  $T_{UTRAN-GPS}$  *Quality* IE and the  $T_{UTRAN-GPS}$  *Drift Rate Quality* IE, if available.

### 8.5.2.2.1 Successful Operation for lur-g

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC<sub>1</sub> to the BSS<sub>2</sub> or from the BSS<sub>1</sub> to the RNC<sub>2</sub>/BSS<sub>2</sub>.

Upon receipt, the RNC<sub>2</sub>/BSS<sub>2</sub> shall initiate the requested measurement according to the parameters given in the request.

#### Common measurement type on Iur-g

If the Common Measurement Type IE is set to "load", the RNC<sub>2</sub>/BSS<sub>2</sub> shall initiate measurements and report results as described in section 8.5.2.2.

If the Common Measurement Type IE is set to "RT load", the RNC<sub>2</sub>/BSS<sub>2</sub> shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC<sub>2</sub>/BSS<sub>2</sub> shall initiate measurements and report results as described in section 8.5.2.2.

#### Report characteristics on Iur-g

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. This IE is used as described in section 8.5.2.2.

#### Response message for Iur-g

If the RNC<sub>2</sub>/BSS<sub>2</sub> was able to initiate the measurement requested by RNC<sub>1</sub>/BSS<sub>1</sub> it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On Demand", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.

### 8.5.2.3 Unsuccessful Operation

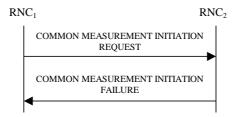


Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the RNC<sub>2</sub> shall send a COMMON MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the COMMON MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

#### Radio Network Layer Cause

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

#### 8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC<sub>2</sub> shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the  $T_{UTRAN-GPS}$  Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the RNC<sub>2</sub> shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE positioning", but the  $T_{UTRAN-GPS}$  Measurement Minimum Accuracy Class IE in the Common Measurement Accuracy IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC<sub>2</sub> shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is not set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Common Measurement Accuracy* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC<sub>2</sub> shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type indicated in the COMMON MEASUREMENT INITIATION REQUEST message the RNC<sub>2</sub> shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", but the Neighbouring Cell Measurement Information IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC $_2$  shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the RNC<sub>2</sub> shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

Table 5: Allowed Common Measurement Type and Report Characteristics Type Combinations

Common	Report characteristics type								
measurement type	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
Received total wide band power	X	X	X	X	Х	X	Х	X	
Transmitted Carrier Power	X	X	X	X	Х	X	Х	X	
UL Timeslot ISCP	Χ	X	Χ	Χ	Χ	Χ	Χ	Χ	
Load	Х	Х	Χ	Χ	Х	Χ	Х	Χ	
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X
SFN-SFN Observed Time Difference	Х	Х							X
RT load	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ	
NRT load Information	Х	Х	Х	Х	Х	Х	Х	Х	

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD - *Time Slot IE*] [1.28Mcps TDD – *Time Slot LCR* IE] is not provided in the COMMON MEASUREMENT INITIATION REQUEST message the RNS<sub>2</sub> shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the RNS<sub>2</sub> shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

#### 8.5.2.4.1 Abnormal Conditions for lur-q

The measurements which can be requested on the Iur and Iur-g interfaces are shown in the table below marked with 'X'.

Table 6: Allowed Common measurement type on lur and lur-g interfaces

Common Measurement Type	Interface	
	lur	lur-g
Received total wide band power	X	
Transmitted Carrier Power	X	
UL Timeslot ISCP	X	
Load	X	Χ
UTRAN GPS Timing of Cell	X	
Frames for LCS		
SFN-SFN Observed Time	X	
Difference		
RT load	X	Χ
NRT load Information	Х	X

If the  $RNC_2$  receives from the  $BSS_1$  a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the  $RNC_2$  shall reject the Common Measurement Initiation procedure.

If the  $BSS_2$  receives from the  $BSS_1$  / RNC<sub>1</sub> a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the  $BSS_2$  shall reject the Common Measurement Initiation procedure.

If the RNC<sub>2</sub> receives from the BSS<sub>1</sub> a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the RNC<sub>2</sub> shall ignore that IE.

If the BSS<sub>2</sub> receives from the BSS<sub>1</sub> / RNC<sub>1</sub> a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the BSS<sub>2</sub> shall ignore that IE.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table in section 8.5.2.4 marked with 'X'. For not allowed combinations, the RNC<sub>2</sub>/BSS<sub>2</sub> shall reject the Common Measurement Initiation procedure.

# 8.5.3 Common Measurement Reporting

### 8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

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

### 8.5.3.2 Successful Operation



Figure 30C: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by RNC<sub>1</sub> when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref. [23] and [24]), the *Common Measurement Value Information* IE shall indicate Measurement not Available.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the RNC<sub>2</sub> shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by RNC<sub>1</sub> when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC<sub>2</sub> shall include in the  $T_{UTRAN-GPS}$  Measurement Value Information IE the  $T_{UTRAN-GPS}$  Quality IE and the  $T_{UTRAN-GPS}$  Drift Rate Quality IE, if available.

## 8.5.3.2.1 Successful Operation for lur-g

If the requested measurement reporting criteria are met, the RNC<sub>2</sub>/BSS<sub>2</sub> shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement ID* IE shall be set to the Common Measurement ID provided by RNC<sub>1</sub>/BSS<sub>1</sub> when initiating the measurement with the Common Measurement Initiation procedure.

If the Common measurement type provided by RNC<sub>1</sub> when initiating the measurement with the Common Measurement Initiation procedure was "SFN-SFN Observed Time Difference", then RNC<sub>2</sub> shall include in the COMMON MEASUREMENT REPORT all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and shall include the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the Common measurement type provided by RNC<sub>1</sub> when initiating the measurement with the Common Measurement Initiation procedure was not set to "SFN-SFN Observed Time Difference" and the SFN Reporting Indicator when initiating the measurement was set to "FN Reporting Required", the RNC<sub>2</sub> shall include the SFN IE in the COMMON MEASUREMENT REPORT message. The reported SFN shall be the SFN at the time when the measurement value was

reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.

#### 8.5.3.3 Abnormal Conditions

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## 8.5.4 Common Measurement Termination

#### 8.5.4.1 General

This procedure is used by an RNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

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

### 8.5.4.2 Successful Operation



Figure 30D: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon receipt, RNC<sub>2</sub> shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

## 8.5.4.2.1 Successful Operation for Iur-g

The  $RNC_1/BSS_1$  and  $RNC_2/BSS_2$  shall use the Common Measurement Termination procedure as specified in section 8.5.4.2.

## 8.5.4.3 Abnormal Conditions

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## 8.5.5 Common Measurement Failure

#### 8.5.5.1 General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

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

### 8.5.5.2 Successful Operation



Figure 30E: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from RNC<sub>2</sub> to RNC<sub>1</sub> to inform the RNC<sub>1</sub> that a previously requested measurement can no longer be reported. RNC<sub>2</sub> has locally terminated the indicated measurement. The RNC<sub>2</sub> shall include in the COMMON MEASUREMENT FAILURE INDICATION message the reason for the failure in the *Cause* IE.

### 8.5.5.2.1 Successful Operation for lur-g

The RNC<sub>1</sub>/BSS<sub>1</sub> and RNC<sub>2</sub>/BSS<sub>2</sub> shall use the Common Measurement Failure procedure as specified in section 8.5.5.2.

#### 8.5.5.3 Abnormal Conditions

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# 8.5.6 Information Exchange Initiation

#### 8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

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

### 8.5.6.2 Successful Operation

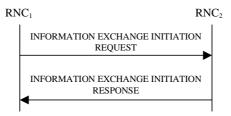


Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC<sub>1</sub> to RNC<sub>2</sub>.

Upon receipt, the RNC<sub>2</sub> shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

#### **Information Report Characteristics:**

The Information Report Characteristics IE indicates how the reporting of the information shall be performed.

If the Information Report Characteristics IE is set to "On Demand", the RNC<sub>2</sub> shall report the requested information immediately.

If the Information Report Characteristics IE is set to "Periodic", the RNC<sub>2</sub> shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the Information Report Periodicity IE.

If the *Information Report Characteristics* IE is set to "On Modification", the RNC<sub>2</sub> shall report the requested information immediately if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the RNC<sub>2</sub> shall initiate the Information Reporting procedure when the requested information becomes available. The RNC<sub>2</sub> shall then initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC<sub>2</sub> shall initiate the Information Reporting procedure when any change in the parameters occurs.

- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t<sub>ot</sub> or WN<sub>t</sub> parameter.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC $_2$  shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the  $t_{oa}$  or WN $_a$  parameter has occurred.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the *Information Type* IE is set to "Cell Capacity Class", the RNC<sub>2</sub> shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC<sub>2</sub> shall report the result of both uplink and downlink cell capacity information.
- If any of the above *Information Type* IEs becomes temporarily unavailable, the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific Information.

#### Response message:

If the RNC<sub>2</sub> is able to determine the information requested by the RNC<sub>1</sub>, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

### 8.5.6.2.1 Successful Operation for lur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from  $BSS_1$  to  $BSS_2/RNC_2$  or by  $RNC_1$  to  $BSS_2$ .

Upon receipt, the  $BSS_2/RNC_2$  shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

### **Information Report Characteristics on Iur-g:**

If the *Information Type Item* IE is set to "Cell Capacity Class", the RNC<sub>2</sub>/BSS<sub>2</sub> shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

### 8.5.6.3 Unsuccessful Operation

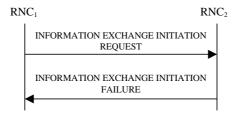


Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation

If the requested Information Type received in the *Information Type* IE indicates a type of information that RNC<sub>2</sub> cannot provide, the RNC<sub>2</sub> shall reject the Information Exchange Initiation procedure.

If the requested information provision cannot be accessed, the RNC<sub>2</sub> shall reject the procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The message shall include the *Information Exchange ID* IE set to the same value that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

#### **Radio Network Layer Cause:**

- Information temporarily not available.
- Information Provision not supported for the object.

#### 8.5.6.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC<sub>2</sub> shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The allowed combinations of the Information type and Information Report Characteristics type are shown in the table below marked with "X". For not allowed combinations, the RNC<sub>2</sub> shall reject the Information Exchange Initiation procedure using the INFORMATION EXCHANGE INITIATION FAILURE message.

Table 6a: Allowed Information Type and Information Report Characteristics type combinations

Туре	Information Report Characteristics Type					
	On Demand	Periodic	On Modification			
UTRAN Access Point Position with	Х					
Altitude Information	V					
UTRAN Access Point Position	Х					
IPDL Parameters	X	Χ	X			
GPS Information	X	Χ	X			
DGPS Corrections	X	Χ	X			
GPS RX Pos	X					
SFN-SFN	X					
Measurement						
Reference Point						
Position						
Cell Capacity Class	X		X			

### 8.5.6.4.1 Abnormal Conditions for lur-g

The information types that can be requested on the Iur and Iur-g interfaces are shown in the table below marked with 'X'. For information types that are not applicable on the Iur-g interface, the BSS shall reject the Information Exchange Initiation procedure.

Table 7: Allowed	Information	types on I	ur and	lur-g in	terfaces

Information Type	Inte	erface
·	lur	lur-g
UTRAN Access Point Position	X	
with Altitude Information		
UTRAN Access Point Position	X	
IPDL Parameters	X	
DGPS Corrections	X	
GPS Information	X	
GPS RX Pos	X	
SFN-SFN Measurement	X	
Reference Point Position		
Cell Capacity Class	X	X

# 8.5.7 Information Reporting

#### 8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

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

### 8.5.7.2 Successful Operation



Figure 30H: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the RNC<sub>2</sub> shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the RNC<sub>1</sub> when initiating the information exchange with the Information Exchange Initiation procedure.

The Requested Data Value IE shall include at least one IE containing the data to be reported.

#### 8.5.7.2.1 Successful Operation for lur-g

The  $RNC_1/BSS_1$  and  $RNC_2/BSS_2$  shall use the Information Reporting procedure as specified in section 8.5.7.2.

### 8.5.7.3 Abnormal Conditions

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## 8.5.8 Information Exchange Termination

#### 8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

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

### 8.5.8.2 Successful Operation



Figure 30I: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon receipt, the RNC<sub>2</sub> shall terminate the information exchange corresponding to the *Information Exchange ID* IE provided by the RNC<sub>1</sub> when initiating the information exchange with the Information Exchange Initiation procedure.

### 8.5.8.2.1 Successful Operation for lur-g

The RNC<sub>1</sub>/BSS<sub>1</sub> and RNC<sub>2</sub>/BSS<sub>2</sub> shall use the Information Exchange Termination procedure as specified in section 8.5.8.2.

#### 8.5.8.3 Abnormal Conditions

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# 8.5.9 Information Exchange Failure

### 8.5.9.1 General

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

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

## 8.5.9.2 Successful Operation



Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC<sub>2</sub> to the RNC<sub>1</sub>, to inform the RNC<sub>1</sub> that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The RNC<sub>2</sub> shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the RNC<sub>1</sub> when initiating the information exchange with the Information Exchange Initiation procedure, and the RNC<sub>2</sub> shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

#### Radio Network Layer Cause:

Information temporarily not available.

### 8.5.9.2.1 Successful Operation for lur-g

The RNC<sub>1</sub>/BSS<sub>1</sub> and RNC<sub>2</sub>/BSS<sub>2</sub> shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

### 8.5.10 Reset

#### 8.5.10.1 General

The purpose of the reset procedure is to align the resources in RNC<sub>1</sub> and RNC<sub>2</sub> in the event of an abnormal failure.

The procedure uses connectionless signalling.

### 8.5.10.2 Successful Operation

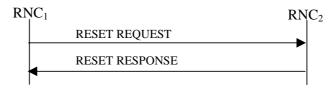


Figure 30K: Reset procedure, Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the RNC<sub>1</sub> to the RNC<sub>2</sub>.

If the *Reset Indicator* IE is set to "Context", then:

- For all indicated UE Contexts identified by the *S-RNTI* IE, the RNC<sub>2</sub> in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC<sub>2</sub> shall take actions according to Annex D.2.
- For all indicated UE Contexts identified by the D-RNTI IE, the RNC<sub>2</sub> in the role of SRNC, shall remove the information related to the RNC<sub>1</sub> for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

If the Reset Indicator IE is set to "Context Group", then:

- For all indicated UE Context Groups identified by the *S-RNTI Group* IE, the RNC<sub>2</sub> in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC<sub>2</sub> shall take actions according to Annex D.2.

If the Reset Indicator IE is set to "All Contexts", then the RNC<sub>2</sub> shall:

- In the role of DRNC, remove all the UE Contexts for which the RNC<sub>1</sub> is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the RNC<sub>2</sub> shall take actions according to Annex D.2.
- In the role of SRNC, remove the information related to the  $RNC_1$  for all the UE Contexts and all the radio resources allocated for these UE Contexts.

For all the removed UE Contexts and for all the UE Contexts for which the RNC<sub>2</sub> has removed information related to the RNC<sub>1</sub>, the RNC<sub>2</sub> shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the RNC<sub>2</sub> shall return the RESET RESPONSE message to the RNC<sub>1</sub>.

#### 8.5.10.3 Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

# 9 Elements for RNSAP Communication

# 9.1 Message Functional Definition and Content

### 9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, in which the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

# 9.1.2 Message Contents

#### 9.1.2.1 Presence

An information element can be of the following types:

M	IEs marked as Mandatory (M) shall always be included in the message.
0	IEs marked as Optional (O) may or may not be included in the message.
С	IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE
	shall not be included.

In the case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. Each group may be also repeated within one message. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

## 9.1.2.2 Criticality

Each information element or Group of information elements may have criticality information applied to it. Following cases are possible:

_	No criticality information is applied explicitly.
YES	Criticality information is applied. 'YES' is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information.
	'GLOBAL' is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign
	different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements.

### 9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

### 9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

# 9.1.3 RADIO LINK SETUP REQUEST

# 9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
SRNC-ID	M		RNC-ID		YES	reject
			9.2.1.50			
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	0		9.2.1.24		YES	reject
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		1			YES	reject
>UL Scrambling Code	M		9.2.2.53		_	
>Min UL Channelisation Code Length	М		9.2.2.25		_	
>Max Number of UL	C –		9.2.2.24		_	
DPDCHs	CodeLen					
>Puncture Limit	M		9.2.1.46	For the UL.	_	
>TFCS	M		9.2.1.63		_	
>UL DPCCH Slot Format	M		9.2.2.52		_	
>Uplink SIR Target	0		Uplink SIR 9.2.1.69		_	
>Diversity mode	M		9.2.2.8		_	
>SSDT Cell Identity Length	0		9.2.2.41		_	
>S Field Length	0		9.2.2.36		_	
>DPC Mode	0		9.2.2.12A		YES	reject
DL DPCH Information		1			YES	reject
>TFCS	М		9.2.1.63		_	
>DL DPCH Slot Format	М		9.2.2.9		_	
>Number of DL	M		9.2.2.26A		_	
Channelisation Codes						
>TFCI Signalling Mode	M		9.2.2.46		_	
>TFCI Presence	C- SlotFormat		9.2.1.55		-	
>Multiplexing Position	М		9.2.2.26		_	
>Power Offset Information		1			_	
>>P01	М		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	М		Power Offset 9.2.2.30	Power offset for the pilot bits.	_	
>FDD TPC Downlink Step Size	М		9.2.2.16		-	
>Limited Power Increase	М		9.2.2.21A		_	
>Inner Loop DL PC Status	М		9.2.2.21a		_	
>Split Type	0		9.2.2.39a		YES	reject
>Length of TFCI2	0		9.2.2.21C		YES	reject
DCH Information	M		DCH FDD Information		YES	reject
DSCH Information	0		9.2.2.4A DSCH FDD Information 9.2.2.13A		YES	reject
RL Information		1 <maxn oofRLs&gt;</maxn 	3.2.2.13A		EACH	notify
>RL ID	М	22.7.232	9.2.1.49		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>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	0		9.2.2.33		_	
>Diversity Control Field	C – NotFirstRL		9.2.1.20		_	
>Initial DL TX Power	0		DL Power 9.2.1.21A		_	
>Primary CPICH Ec/No	0		9.2.2.32		_	
>SSDT Cell Identity	0		9.2.2.40		_	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		-	
>SSDT Cell Identity for EDSCHPC	C- EDSCHPC		9.2.2.40A		YES	ignore
>Enhanced Primary CPICH Ec/No	0		9.2.2.131		YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
>Qth Parameter	0		9.2.2.34a		YES	ignore
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
Active Pattern Sequence Information	0		9.2.2.A		YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore
DL Power Balancing Information	0		9.2.2.10A		YES	ignore
HS-DSCH Information	0		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-PDSCH RL ID	C – InfoHSDS CH		RL ID 9.2.1.49		YES	reject
UE Support Of Dedicated Pilots For Channel Estimation	0		9.2.2.50A		YES	ignore
UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH	0		9.2.2.50B		YES	ignore

Condition	Explanation
CodeLen	The IE shall be present if 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.

# 9.1.3.2 TDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
SRNC-ID	M		RNC-ID		YES	reject
			9.2.1.50			
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	0		9.2.1.24		YES	reject
UL Physical Channel		1			YES	reject
Information						,
>Maximum Number of Timeslots	М		9.2.3.3A	For the UL	-	
>Minimum Spreading Factor	М		9.2.3.4A	For the UL	_	
>Maximum Number of UL	M		9.2.3.3B	1 01 110 02	_	
Physical Channels per Timeslot			0.2.0.00			
>Support of 8PSK	0		9.2.3.7H	Applicable to 1.28Mcps TDD only	YES	ignore
DL Physical Channel		1		TDD Offig	YES	reject
Information		'			ILO	16,600
	M		0.2.2.2.4	For the DL		
>Maximum Number of Timeslots			9.2.3.3A		_	
>Minimum Spreading Factor	M		9.2.3.4A	For the DL	_	
>Maximum Number of DL	M		9.2.3.3C		_	
Physical Channels						
>Maximum Number of DL Physical Channels per Timeslot	0		9.2.3.3D		YES	ignore
>Support of 8PSK	0		9.2.3.7H	Applicable to 1.28Mcps TDD only	YES	ignore
Allowed Ouguing Time	0		9.2.1.2	100 only	YES	roinat
Allowed Queuing Time UL CCTrCH Information	0	0	9.2.1.2	F DOLL		reject
OL CCITCH Information		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH and USCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	M		9.2.1.63	For the UL.	_	
>TFCI Coding	M		9.2.3.11	1 01 110 02.	_	
>Puncture Limit	M		9.2.1.46		_	
>TDD TPC Uplink Step Size	O		9.2.3.10a	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD	YES	reject
DL CCTrCH Information		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH and DSCH	EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
>TFCS	M		9.2.1.63	For the DL.	_	
>TFCI Coding	M	1	9.2.1.03	TOTALEDE.		
>Puncture Limit	M	+	9.2.3.11			
>TDD TPC Downlink Step	M		9.2.3.10		_	
Size >TPC CCTrCH List	-	0 :	1	1:-4 ( " '		
>TPC CCTrCH List		0 <maxno CCTrCHs&gt;</maxno 		List of uplink CCTrCH which provide TPC	_	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2	F	-	
DCH Information	0	1	DCH TDD		YES	reject
			Information		150	reject

			9.2.3.2A	1		
DSCH Information	0		DSCH TDD Information 9.2.3.3a		YES	reject
USCH Information	0		9.2.3.15		YES	reject
RL Information		1			YES	reject
>RL ID	M		9.2.1.49		_	
>C-ID	M		9.2.1.6		_	
>Frame Offset	M		9.2.1.30		_	
>Special Burst Scheduling	M		9.2.3.7D		_	
>Primary CCPCH RSCP	0		9.2.3.5		_	
>DL Time Slot ISCP Info	0		9.2.3.2D	Applicable to 3.84Mcps TDD only	-	
>DL Time Slot ISCP Info LCR	0		9.2.3.2F	Applicable to 1.28Mcps TDD only	YES	reject
>TSTD Support Indicator	0		9.2.3.13F	Applicable to 1.28Mcps TDD only	YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
>UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	М		9.2.3.13J		-	
>>Uplink Synchronisation Frequency	М		9.2.3.131		-	
>Primary CCPCH RSCP Delta	0		9.2.3.5a		YES	ignore
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore
HS-DSCH Information	0		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-PDSCH RL ID	C - InfoHSDS CH		RL ID 9.2.1.49		YES	reject
PDSCH-RL-ID	0		RL ID 9.2.1.49		YES	ignore

Condition	Explanation
InfoHSDSCH	This IE shall be present if HS-DSCH Information IE is present.

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE.

# 9.1.4 RADIO LINK SETUP RESPONSE

# 9.1.4.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	•
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
RL Information Response		1 <maxno ofRLs&gt;</maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
>RL Set ID	M		9.2.2.35		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		_	
>Received Total Wide Band Power	М		9.2.2.35A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		-	
>CHOICE Diversity Indication	М				_	
>>Combining					_	
>>>RL ID	М		9.2.1.49	Reference RL ID for the combining	_	
>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>Non Combining or First RL					_	
>>>DCH Information Response	М		9.2.1.16A		_	
>SSDT Support Indicator	M		9.2.2.43		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>Primary Scrambling Code	0		9.2.1.45		_	
>UL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	_	
>DL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	-	
>Primary CPICH Power	М		9.2.1.44		_	
>DSCH Information Response	Ö		DSCH FDD Information Response 9.2.2.13B		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		ı	
>PC Preamble	M		9.2.2.27a		_	
>SRB Delay	M		9.2.2.39A		_	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Primary CPICH Usage For Channel Estimation	0		9.2.2.32A		YES	ignore
Uplink SIR Target	0		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
DSCH-RNTI	0		9.2.1.26Ba		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore
HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore

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

# 9.1.4.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Manager T	N 4				VEO	
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
RL Information Response		01		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	0		9.2.1.70B		ı	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point	0		9.2.1.70A		_	
Position		1				
>UL Time Slot ISCP Info	М	1	9.2.3.13D		_	
>Maximum Uplink SIR	M	1	Uplink SIR		_	
>Maximum Opinik On	IVI		9.2.1.69		_	
>Minimum Uplink SIR	M	1	Uplink SIR		_	
>WILLIAM OPILIK SIK	IVI		9.2.1.69		_	
>Maximum Allowed UL Tx	M		9.2.1.35			
	IVI		9.2.1.35		_	
Power			DI D			
>Maximum DL TX Power	M		DL Power		_	
			9.2.1.21A			
>Minimum DL TX Power	M		DL Power		_	
			9.2.1.21A			
>UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	-	
>Cell Parameter ID	0		9.2.1.8		_	
>Sync Case	0		9.2.1.54		_	
>SCH Time Slot	C-Case2		9.2.1.51		_	
>SCTD Indicator	0		9.2.1.78		_	
>PCCPCH Power	M		9.2.1.43		_	
>Timing Advance Applied	M		9.2.3.12A			
					_	
>Alpha Value	M		9.2.3.a		_	
>UL PhysCH SF Variation	M	-	9.2.3.13B		_	
>Synchronisation	M		9.2.3.7E		_	
Configuration						
>Secondary CCPCH Info TDD	0		9.2.3.7B		ı	
>UL CCTrCH Information		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>UL DPCH Information		01			YES	ignore
>>Repetition Period	М	1	9.2.3.7			.30.0
>>>Repetition Length	M	†	9.2.3.6		_	
>>>TDD DPCH Offset	M	†	9.2.3.8A			
>>>UL Timeslot	M	1	9.2.3.6A 9.2.3.13C		<u> </u>	
Information	IVI	1	3.2.3.130		_	
	0	+	Linding CID		VEC	ianana
>>Uplink SIR Target	١٥		Uplink SIR		YES	ignore
CCTrCU		i	9.2.1.69	F 5011		:
CCTrCH Information		0				
>DL CCTrCH Information		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH	GLOBAL	ignore
>DL CCTrCH Information	M		9232	For DCH	GLOBAL	ignore
	M	ofCCTrCH	9.2.3.2	For DCH	GLOBAL - YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot	M		9.2.3.2C			
Information	'''		3.2.3.20			
>>CCTrCH Maximum DL	0		DL Power	Maximum	YES	ignore
TX Power			9.2.1.21A	allowed power on DPCH	120	ignore
>>CCTrCH Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCH Information		0			GLOBAL	ignore
Response		<maxnoof DSCHs&gt;</maxnoof 				
>>DSCH ID	М		9.2.1.26A		_	
>>DSCH Flow Control Information	М		9.2.1.26B		-	
>>Binding ID	0		9.2.1.3		-	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Eayer Hadress	M		9.2.3.13		_	
Management						
>USCH Information		0			GLOBAL	ignore
Response		<maxnoof USCHs&gt;</maxnoof 			0205/12	ignore
>>USCH ID	М		9.2.3.14		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	М		9.2.3.13		_	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Time Slot for SCH	C-Case1		Time Slot 9.2.1.56		YES	ignore
Uplink SIR Target	М		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0	1	9.2.1.13		YES	ignore
RL Information Response LCR		01		Mandatory for 1.28Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	М		9.2.1.49		_	
>URA Information	М		9.2.1.70B		_	
>SAI	М		9.2.1.52		-	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		_	
>UL Time Slot ISCP Info LCR	М		9.2.3.13H		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		-	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power		_	

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
>Minimum DL TX Power	M		9.2.1.21A DL Power			
>Minimum DL TX Power	IVI		9.2.1.21A		_	
>UARFCN	0		UARFCN	Corresponds	_	
JUARFON			9.2.1.66	to Nt in ref.	_	
>Cell Parameter ID			0.04.0	[7]		
	0		9.2.1.8		_	
>SCTD Indicator	0		9.2.1.78		_	
>PCCPCH Power	M		9.2.1.43		_	
>Alpha Value	M		9.2.3.a		_	
>UL PhysCH SF Variation	M		9.2.3.13B		_	
>Synchronisation Configuration	М		9.2.3.7E		_	
>Secondary CCPCH Info TDD LCR	0		9.2.3.7F		_	
>UL CCTrCH Information		0 <maxno< td=""><td></td><td>For DCH</td><td>GLOBAL</td><td>ignore</td></maxno<>		For DCH	GLOBAL	ignore
LCR		ofCCTrCH sLCR>				
>>CCTrCH ID	М		9.2.3.2		_	
>>UL DPCH Information LCR		01			YES	ignore
>>>Repetition Period	М		9.2.3.7		_	
>>Repetition Length	M		9.2.3.6	1	_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>UL Timeslot	M		9.2.3.13G			
Information LCR						
>>Uplink SIR Target CCTrCH	0		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information LCR		0 <maxno ofCCTrCH sLCR&gt;</maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>DL DPCH Information LCR		01			YES	ignore
>>>Repetition Period	М		9.2.3.7		_	
>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot	M		9.2.3.2E		_	
Information LCR >>>TSTD Indicator	M		9.2.3.13E			
>DCH Information Response	O		9.2.3.13E 9.2.1.16A		YES	ianoro
>DSCH Information	0	0	9.2.1.10A			ignore
Response LCR		0 <maxnoof DSCHsLC R&gt;</maxnoof 			GLOBAL	ignore
>>DSCH ID	М		9.2.1.26A		_	
>>DSCH Flow Control Information	М		9.2.1.26B		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	M		9.2.3.13		_	
>USCH Information		0			GLOBAL	ignore
Response LCR		<pre><maxnoof r="" uschslc=""></maxnoof></pre>			GLOBAL	ignore
>>USCH ID	М		9.2.3.14		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	М		9.2.3.13		_	
>Neighbouring UMTS Cell	0		9.2.1.41A		_	
Information						

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring GSM Cell Information	0		9.2.1.41C		I	
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>Uplink Timing Advance Control LCR	М		9.2.3.13K		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore
HS-DSCH Information Response	0		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
DSCH RNTI	0		9.2.1.26Ba		YES	ignore

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

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
maxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE for 3.84Mcps TDD.
maxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
maxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
maxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.

# 9.1.5 RADIO LINK SETUP FAILURE

# 9.1.5.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	•
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
CHOICE Cause Level	M				YES	ignore
>General					_	J
>>Cause	M		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL		1 <maxno< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxno<>			EACH	ignore
Information Response		ofRLs>				3
>>>RL ID	М		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
>>Successful RL		0 <maxno< td=""><td>0.20</td><td></td><td>EACH</td><td>ignore</td></maxno<>	0.20		EACH	ignore
Information Response		ofRLs-1>				.g
>>>RL ID	М		9.2.1.49		_	
>>>RL Set ID	M		9.2.2.35		_	
>>>URA Information	O		9.2.1.70B		_	
>>>SAI	M	<del> </del>	9.2.1.705		_	
>>Cell GAI	O		9.2.1.5A		_	
>>>UTRAN Access Point	0		9.2.1.70A		_	
Position >>>Received Total Wide					_	
Band Power	М		9.2.2.35A		_	
>>>Secondary CCPCH Info	0		9.2.2.37B		_	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		_	
>>>CHOICE Diversity Indication	М				_	
>>>Combining					_	
>>>>RL ID	М		9.2.1.49	Reference RL ID for the combining	-	
>>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>>Non Combining or First RL					_	
>>>>DCH Information Response	М		9.2.1.16A		-	
>>>SSDT Support Indicator	М		9.2.2.43		_	
>>>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>>>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		-	
>>>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		_	
>>>Maximum Allowed UL Tx Power	М		9.2.1.35		-	
>>>Maximum DL TX Power	М		DL Power 9.2.1.21A		-	
>>>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>>>Primary CPICH Power	М		9.2.1.44		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>Primary Scrambling Code	0		9.2.1.45		_	
>>>UL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	-	
>>>DL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	-	
>>>DSCH Information Response	0		DSCH FDD Information Response 9.2.2.13B		YES	ignore
>>>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>>>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>>>PC Preamble	M		9.2.2.27a		_	
>>>SRB Delay	M		9.2.2.39A		_	
>>>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>>>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>>>HCS Prio	0		9.2.1.30N		YES	ignore
>>>Primary CPICH Usage For Channel Estimation	0		9.2.2.32A		YES	ignore
>>DSCH-RNTI	0		9.2.1.26Ba		YES	ignore
>>HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore
>>HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
Uplink SIR Target	0		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

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

# 9.1.5.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	М		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

# 9.1.6 RADIO LINK ADDITION REQUEST

# 9.1.6.1 FDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		-	•
Uplink SIR Target	М		Uplink SIR 9.2.1.69		YES	reject
RL Information		1 <maxn oofRLs- 1&gt;</maxn 	0.2.1.00		EACH	notify
>RL ID	M		9.2.1.49		_	
>C-ID	M		9.2.1.6		_	
>Frame Offset	M		9.2.1.30		_	
>Chip Offset	M		9.2.2.1		_	
>Diversity Control Field	M		9.2.1.20		_	
>Primary CPICH Ec/No	0		9.2.2.32		_	
>SSDT Cell Identity	0		9.2.2.40			
>Transmit Diversity Indicator	0		9.2.2.48		_	
>DL Reference Power	0		DL Power 9.2.1.21A	Power on DPCH	YES	ignore
>Enhanced Primary CPICH Ec/No	0		9.2.2.131		YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
>Qth Parameter	0		9.2.2.34a		YES	ignore
Active Pattern Sequence Information	0		9.2.2A	Either all the already active Transmissio n Gap Sequence(s) are addressed (Transmissio n Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated.	YES	reject
DPC Mode	0		9.2.2.12A		YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore

Range bound	Explanation			
maxnoofRLs	Maximum number of radio links for one UE.			

# 9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	. 0,000
RL Information		1			YES	reject
>RL ID	М		9.2.1.49		_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
>C-ID	М		9.2.1.6		1	
>Frame Offset	М		9.2.1.30		-	
>Diversity Control Field	М		9.2.1.20		_	
>Primary CCPCH RSCP	0		9.2.3.5		_	
>DL Time Slot ISCP Info	0		9.2.3.2D	Applicable to 3.84Mcps TDD only	-	
>DL Time Slot ISCP Info LCR	0		9.2.3.2F	Applicable to 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
>UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	M		9.2.3.13J		_	
>>Uplink Synchronisation Frequency	M		9.2.3.131		_	
> Primary CCPCH RSCP Delta	0		9.2.3.5a		YES	ignore
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore
UL CCTrCH Information		0< maxno ofCCTr CHs >			EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
>TDD TPC Uplink Step Size	0		9.2.3.10a	Applicable to 1.28Mcps TDD only	-	
DL CCTrCH Information		0< maxno ofCCTr CHs >		- ,	EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
>TDD TPC Downlink Step Size	0		9.2.3.10		-	

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCH for one UE.

# 9.1.7 RADIO LINK ADDITION RESPONSE

# 9.1.7.1 FDD Message

IE/Group Name	Presence	Range	IE Type and 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&gt;</maxnoof 			EACH	ignore
>RL ID	М		9.2.1.49		_	
>RL Set ID	М		9.2.2.35		_	
>URA Information	0		9.2.1.70B		_	
>SAI	М		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		-	
>Received Total Wide Band Power	М		9.2.2.35A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>CHOICE Diversity Indication	М				_	
>>Combining					_	
>>>RL ID	М		9.2.1.49	Reference RL ID	-	
>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>Non Combining	N 4		0.04.404		_	
>>>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	0		9.2.2.3A		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		-	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		-	
>Neighbouring GSM Cell Information	0		9.2.1.41C		-	
>PC Preamble	М		9.2.2.27a		_	
>SRB Delay	M		9.2.2.39A		_	
>Primary CPICH Power	M		9.2.1.44		_	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Primary CPICH Usage For Channel Estimation	0		9.2.2.32A		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range bound	Explanation			
maxnoofRLs	Maximum number of radio links for one UE.			

# 9.1.7.2 TDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	•		,
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
RL Information Response		01		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	0		9.2.1.70B		ı	
>SAI	M		9.2.1.52		1	
>Cell GAI	0		9.2.1.5A		ı	
>UTRAN Access Point Position	0		9.2.1.70A		-	
>UL Time Slot ISCP Info	М		9.2.3.13D		-	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>PCCPCH Power	M		9.2.1.43		_	
>Timing Advance Applied	M		9.2.1.43 9.2.3.12A			
>Alpha Value	M		9.2.3.12A 9.2.3.a			
>UL PhysCH SF Variation	M		9.2.3.13B			
>Synchronisation	M		9.2.3.13B 9.2.3.7E			
Configuration >Secondary CCPCH Info	0		9.2.3.7E		_	
TDD	0		9.2.3.78	F 5011	-	
>UL CCTrCH Information		0 <maxnoof CCTrCHs&gt;</maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		ı	
>>UL DPCH		01			YES	ignore
Information						
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M	-	9.2.3.8A		_	
>>>UL Timeslot Information	М		9.2.3.13C		_	
>DL CCTrCH Information		0 <maxnoof CCTrCHs&gt;</maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		_	
>>DL DPCH Information		01			YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information	M		9.2.3.2C		_	
>>CCTrCH Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>>CCTrCH Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>DCH Information		01	11010101100		_	
>>CHOICE Diversity	М				_	
Indication						
>>>Combining					_	
>>>RL ID	М		9.2.1.49	Reference	_	
				RL		
>>>DCH	0		9.2.1.16A		YES	ignore
Information						
Response						
>>>Non Combining					_	
>>>DCH	М		9.2.1.16A		_	
Information						
Response						
>DSCH Information		0			GLOBAL	ignore
Response		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
		DSCHs>				
>>DSCH ID	M		9.2.1.26A		_	
>>Transport Format	M		9.2.3.13		_	
Management						
>>DSCH Flow Control	М		9.2.1.26B			
Information						
>>CHOICE Diversity	0				_	
Indication						
>>>Non Combining					_	
>>>>Binding ID	0		9.2.1.3		_	
>>>>Transport	0		9.2.1.62		_	
Layer Address						
>USCH Information		0			GLOBAL	ignore
Response		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
		USCHs>				
>>USCH ID	M		9.2.3.14		_	
>>Transport Format	M		9.2.3.13		_	
Management						
>>CHOICE Diversity	0				_	
Indication						
>>>Non Combining					_	
>>>>Binding ID	0		9.2.1.3		_	
>>>>Transport	0		9.2.1.62		_	
Layer Address						
>Neighbouring UMTS Cell	0		9.2.1.41A		_	
Information						
>Neighbouring GSM Cell	0		9.2.1.41C		_	
Information						
>Cell GA Additional	0		9.2.1.5B		YES	ignore
Shapes						
>HCS Prio	0		9.2.1.30N		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
RL Information Response		01		Mandatory	YES	ignore
LCR				for 1.28Mcps		
				TDD, not		
				applicable to		
				3.84Mcps		
				TDD		
>RL ID	M		9.2.1.49		_	
>URA Information	M		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point	0		9.2.1.70A			
Position						
>UL Time Slot ISCP Info	М		9.2.3.13H		-	
LCR						
>Maximum Uplink SIR	М		Uplink SIR		_	
· ·			9.2.1.69			
>Minimum Uplink SIR	М		Uplink SIR		-	
				1		

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.1.69			
>PCCPCH Power	M		9.2.1.43		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		-	
>Alpha Value	М		9.2.3.a		_	
>UL PhysCH SF Variation	М		9.2.3.13B		_	
>Synchronisation Configuration	М		9.2.3.7E		_	
>Secondary CCPCH Info TDD LCR	0		9.2.3.7F		_	
>UL CCTrCH Information LCR		0 <maxnoof CCTrCHsLC R&gt;</maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>UL DPCH	1	01			YES	ignore
Information LCR						.50.0
>>>Repetition Period	М		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>UL Timeslot	M		9.2.3.13G		_	
Information LCR						
>DL CCTrCH Information		0 <maxnoof< td=""><td></td><td>For DCH</td><td>GLOBAL</td><td>ignore</td></maxnoof<>		For DCH	GLOBAL	ignore
LCR		CCTrCHsLC R>				Ü
>>CCTrCH ID	М		9.2.3.2		_	
>>DL DPCH		01			YES	ignore
Information LCR						
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information LCR	M		9.2.3.2E		_	
>>>TSTD Indicator	M		9.2.3.13E		_	
>DCH Information Response	M		9.2.1.16A		_	
>DSCH Information Response LCR		0 <maxnoof DSCHsLCR &gt;</maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		_	
>>DSCH Flow Control Information	М		9.2.1.26B		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	М		9.2.3.13		_	
>USCH Information Response LCR		0 <maxnoof USCHsLCR</maxnoof 			GLOBAL	ignore
>>USCH ID	М	1	9.2.3.14		_	
>>Transport Format Management	M		9.2.3.13		-	
>>CHOICE Diversity Indication	0				-	
>>Non Combining		1			_	
>>>Binding ID	0		9.2.1.3		_	
>>>Transport	0		9.2.1.62		-	
Layer Address						

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring UMTS Cell Information	0		9.2.1.41A		ı	
>Neighbouring GSM Cell Information	0		9.2.1.41C		-	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Uplink Timing Advance Control LCR	М		9.2.3.13K		YES	ignore

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
maxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
maxnoofCCTrCHs	Maximum number of CCTrCHs for one UE for 3.84Mcps TDD.
maxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
maxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
maxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.

# 9.1.8 RADIO LINK ADDITION FAILURE

# 9.1.8.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL		1 <maxnoof< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoof<>			EACH	ignore
Information Response		RLs-1>				
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	<u> </u>
>>Successful RL Information Response		0 <maxnoof RLs-2&gt;</maxnoof 			EACH	ignore
>>>RL ID	М	ALO E	9.2.1.49		_	<del> </del>
>>>RL Set ID	M		9.2.2.35		_	+
>>>URA Information	0		9.2.1.70B		_	<del> </del>
>>>SAI	M		9.2.1.52		_	
>>>Cell GAI	0		9.2.1.5A		_	1
>>>UTRAN Access	0		9.2.1.70A		_	
Point Position			0.2.117 07 1			
>>>Received Total Wide Band Power	М		9.2.2.35A		_	
>>>Secondary CCPCH Info	0		9.2.2.37B		_	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>>>CHOICE Diversity	М				-	
Indication						
>>>Combining			0.0.1.10	5 (	_	
>>>>RL ID	М		9.2.1.49	Reference RL ID	_	
>>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>>Non Combining	N 4		0.04.404		_	
>>>>DCH Information Response	M		9.2.1.16A		_	
>>>SSDT Support Indicator	М		9.2.2.43		_	
>>>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>>>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		-	
>>>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		-	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		_	
>>>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>>>Minimum DL TX Power	M		DL Power 9.2.1.21A		_	
>>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>>>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>>>Primary CPICH	M		9.2.1.44		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Power						
>>>PC Preamble	M		9.2.2.27a		_	
>>>SRB Delay	M		9.2.2.39A		_	
>>>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>>>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>>>HCS Prio	0		9.2.1.30N		YES	ignore
>>>Primary CPICH Usage For Channel Estimation	0		9.2.2.32A		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE.

# 9.1.8.2 TDD Message

IE/Group Name	Presence	Range	IE Type and 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	М		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	М		9.2.1.49		_	
>>>Cause	М		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

# 9.1.9 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1 <maxno ofRLs&gt;</maxno 			EACH	notify
>RL ID	M		9.2.1.49		_	

Range bound	Explanation		
maxnoofRLs	Maximum number of radio links for one UE		

## 9.1.10 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

## 9.1.11 RADIO LINK RECONFIGURATION PREPARE

#### FDD Message 9.1.11.1

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		01			YES	reject
>UL Scrambling Code	0		9.2.2.53		_	
>UL SIR Target	0		Uplink SIR 9.2.1.69		_	
>Min UL Channelisation Code Length	0		9.2.2.25		_	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		_	
>Puncture Limit	0		9.2.1.46	For the UL.	_	
>TFCS	0		9.2.1.63	TFCS for the UL.	_	
>UL DPCCH Slot Format	0		9.2.2.52	02.	_	
>Diversity Mode	0		9.2.2.8		_	
>SSDT Cell Identity	0		9.2.2.41		_	
Length					_	
>S-Field Length	0		9.2.2.36		_	
DL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.63	TFCS for the DL.	_	
>DL DPCH Slot Format	0		9.2.2.9		_	
>Number of DL Channelisation Codes	0		9.2.2.26A		_	
>TFCI Signalling Mode	0		9.2.2.46		_	
>TFCI Presence	C- SlotFormat		9.2.1.55		_	
>Multiplexing Position	O		9.2.2.26		_	
>Limited Power Increase	0		9.2.2.21A		_	
>Split Type	0		9.2.2.39a		YES	reject
>Length of TFCI2	0		9.2.2.21C		YES	reject
DCHs To Modify	0		FDD DCHs To Modify		YES	reject
BOIL T A			9.2.2.13C		\/50	
DCHs To Add	0		DCH FDD Information 9.2.2.4A		YES	reject
DCHs To Delete		0 <maxnoof DCHs&gt;</maxnoof 			GLOBAL	reject
>DCH ID	М		9.2.1.16		_	
DSCHs To Modify		01			YES	reject
>DSCH Info		0 <maxnoof DSCHs&gt;</maxnoof 			_	,
>>DSCH ID	М		9.2.1.26A		_	
>>TrCH Source Statistics Descriptor	0		9.2.1.65		_	
>>Transport Format Set	0		9.2.1.64	For DSCH	_	
>>Allocation/ Retention Priority	0		9.2.1.1		_	
>>Scheduling Priority Indicator	0		9.2.1.51A		_	
>>BLER	0		9.2.1.4		_	
		1	1	•		

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Transport Bearer	M		9.2.1.61		_	
Request Indicator						_
>>Traffic Class	0		9.2.1.58A		YES	ignore
>>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>PDSCH RL ID	0		RL ID 9.2.1.49		-	
>TFCS	0		9.2.1.63	For DSCH		
>Enhanced DSCH PC Indicator	0		9.2.2.13F		YES	ignore
>Enhanced DSCH PC	C- EDSCHPC On		9.2.2.13D		YES	ignore
DSCHs To Add	0		DSCH FDD Information 9.2.2.13A		YES	reject
DSCHs to Delete		01			YES	reject
>DSCH Info		1 <maxnoof DSCHs&gt;</maxnoof 			-	,
>>DSCH ID	M		9.2.1.26A		_	
RL Information		0 <maxnoof RLs&gt;</maxnoof 			EACH	reject
>RL ID	M		9.2.1.49		-	
>SSDT Indication	0		9.2.2.42		-	
>SSDT Cell Identity	C - SSDTIndON		9.2.2.40		_	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		_	
>SSDT Cell Identity for EDSCHPC	C- EDSCHPC		9.2.2.40A		YES	ignore
>DL Reference Power	0		DL Power 9.2.1.21A	Power on DPCH	YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>DL DPCH Timing Adjustment	0		9.2.2.9A	Required RL Timing Adjustment	YES	reject
>Qth Parameter	0		9.2.2.34a		YES	ignore
>Phase Reference Update Indicator	0		9.2.2.27B		YES	ignore
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
HS-DSCH Information	0		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-DSCH Information To Modify	0		9.2.1.30Q		YES	reject
HS-DSCH MAC-d Flows To Add	0		HS-DSCH MAC-d Flows Information		YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.1.30OA			
HS-DSCH MAC-d Flows To Delete	0		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	0		RL ID 9.2.1.49		YES	reject
UE Support Of Dedicated Pilots For Channel Estimation	0		9.2.2.50A		YES	ignore
UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH	0		9.2.2.50B		YES	ignore

Condition	Explanation
SSDTIndON	The IE shall be present if the SSDT Indication IE is
	set to 'SSDT Active in the UE'.
CodeLen	The IE shall be present only if the 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 <i>Diversity Mode</i> 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.		

# 9.1.11.2 TDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL CCTrCH To Add		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH and USCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	M		9.2.1.63	For the UL.	_	
>TFCI Coding	M		9.2.3.11		_	
>Puncture Limit	M		9.2.1.46		_	
>UL SIR Target	0		Uplink SIR 9.2.1.69	Mandatory for 1.28Mcps TDD; not applicable to 3.84Mcps TDD	YES	reject
>TDD TPC Uplink Step Size	0		9.2.3.10a	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD	YES	reject
UL CCTrCH To Modify		0 <maxno ofCCTrCH s&gt;</maxno 			EACH	notify
>CCTrCH ID	М	0,	9.2.3.2		_	
>TFCS	0		9.2.1.63	For the UL.	_	
>TFCI Coding	0		9.2.3.11	1 01 410 02.	_	
>Puncture Limit	Ō		9.2.1.46		_	
>UL SIR Target	0		Uplink SIR 9.2.1.69	Applicable to 1.28Mcps TDD only	YES	reject
>TDD TPC Uplink Step Size	0		9.2.3.10a	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH to Delete		0 <maxno ofCCTrCH s&gt;</maxno 			EACH	notify
>CCTrCH ID	М		9.2.3.2			
DL CCTrCH To Add		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH and DSCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	M		9.2.1.63	For the DL.		
>TFCI Coding	M		9.2.3.11		-	
>Puncture Limit	M		9.2.1.46		-	
>TPC CCTrCH List		0 <maxno CCTrCHs&gt;</maxno 		List of uplink CCTrCH which provide TPC	-	
>>TPC CCTrCH ID	М		CCTrCH ID 9.2.3.2		_	
>TDD TPC Downlink Step Size	0		9.2.3.10		YES	reject
DL CCTrCH To Modify		0 <maxno ofCCTrCH s&gt;</maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	0		9.2.1.63	For the DL.	-	
>TFCI Coding	0		9.2.3.11			

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Puncture Limit	0		9.2.1.46		_	
>TPC CCTrCH List		0 <maxno CCTrCHs&gt;</maxno 		List of uplink CCTrCH which provide TPC	-	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		_	
>TDD TPC Downlink Step Size	0		9.2.3.10		YES	reject
DL CCTrCH to Delete		0 <maxno ofCCTrCH s&gt;</maxno 			EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
DCHs To Modify	0		TDD DCHs To Modify 9.2.3.8B		YES	reject
DCHs To Add	0		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		0 <maxno ofDCHs&gt;</maxno 			GLOBAL	reject
>DCH ID DSCHs To Modify	M	0 <maxno ofDSCHs&gt;</maxno 	9.2.1.16		– GLOBAL	reject
>DSCH ID	М	0.20007	9.2.1.26A		_	
>CCTrCH ID	0		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	-	
>TrCH Source Statistics Descriptor	0		9.2.1.65		_	
>Transport Format Set	0		9.2.1.64		_	
>Allocation/Retention Priority	0		9.2.1.1		_	
>Scheduling Priority Indicator	0		9.2.1.51A		_	
>BLER	0		9.2.1.4		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>Traffic Class	0		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
DSCHs To Add	0		DSCH TDD Information 9.2.3.3a		YES	reject
DSCHs to Delete		0 <maxno ofDSCHs&gt;</maxno 			GLOBAL	reject
>DSCH ID	М		9.2.1.26A		_	
USCHs To Modify		0 <maxno ofUSCHs&gt;</maxno 			GLOBAL	reject
>USCH ID	M		9.2.3.14		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>CCTrCH ID	0		9.2.3.2	UL CCTrCH in which the USCH is mapped.	-	
>TrCH Source Statistics Descriptor	0		9.2.1.65		_	
>Transport Format Set	0		9.2.1.64		_	
>Allocation/Retention Priority	0		9.2.1.1		_	
>Scheduling Priority Indicator	0		9.2.1.51A		_	
>BLER	0		9.2.1.4		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>TNL QoS	0		9.2.1.56A		YES	ignore
>RB Info		0 <maxno ofRB&gt;</maxno 		All Radio Bearers using this USCH	-	
>>RB Identity	M		9.2.3.5B		_	
>Traffic class	0		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
USCHs To Add	0		USCH Information 9.2.3.15		YES	reject
USCHs to Delete		0 <maxno ofUSCHs&gt;</maxno 			GLOBAL	reject
>USCH ID	М		9.2.3.14		_	
Primary CCPCH RSCP	0		9.2.3.5		YES	ignore
DL Time Slot ISCP Info	0		9.2.3.2D	Applicable to 3.84Mcps TDD only	YES	ignore
DL Time Slot ISCP Info LCR	0		9.2.3.2F	Applicable to 1.28Mcps TDD only	YES	ignore
HS-DSCH Information	0		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-DSCH Information To Modify	0		9.2.1.30Q		YES	reject
HS-DSCH MAC-d Flows To Add	0		HS-DSCH MAC-d Flows Information 9.2.1.30OA		YES	reject
HS-DSCH MAC-d Flows To Delete	0		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	0		RL ID 9.2.1.49		YES	reject
PDSCH-RL-ID	0		RL ID 9.2.1.49		YES	ignore
UL Synchronisation		01		Mandatory	YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Parameters LCR				for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.		
>Uplink Synchronisation Step Size	М		9.2.3.13J		_	
>Uplink Synchronisation Frequency	М		9.2.3.131		_	
RL Information		0 <maxno ofRLs.</maxno 			YES	ignore
>RL ID	M		9.2.1.49		_	
>RL Specific DCH Information	0		9.2.1.49A		_	
Primary CCPCH RSCP Delta	0		9.2.3.5a		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofDSCHs	Maximum number of DSCHs for one UE.
maxnoofUSCHs	Maximum number of USCHs for one UE.
maxnoofRLs	Maximum number of RLs for one UE

## 9.1.12 RADIO LINK RECONFIGURATION READY

## 9.1.12.1 FDD Message

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59			. 0,001
RL Information Response		0 <maxno ofRLs&gt;</maxno 			EACH	ignore
>RL ID	М		9.2.1.49		_	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		-	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		1	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		ı	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	0		FDD DL Code Information 9.2.2.14A		YES	ignore
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCHs to be Added or Modified	0		DSCH FDD Information Response 9.2.2.13B		YES	ignore
>DL Power Balancing Updated Indicator	0		9.2.2.10D		YES	ignore
>Primary CPICH Usage For Channel Estimation	0		9.2.2.32A		YES	ignore
>Secondary CPICH Information Change	0		9.2.2.38B		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
DSCH-RNTI	0		9.2.1.26Ba		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore
HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
MAC-hs Reset Indicator	0		9.2.1.34B		YES	ignore

Range bound	Explanation			
maxnoofRLs	Maximum number of RLs for a UE.			

# 9.1.12.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
RL Information Response		0 <maxnoof RLs&gt;</maxnoof 		See Note 1 below	YES	ignore
>RL ID	M		9.2.1.49		_	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>Secondary CCPCH Info TDD	0		9.2.3.7B		_	
>UL CCTrCH Information		0 <maxnoof CCTrCHs&gt;</maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>UL DPCH to be Added		01		Applicable to 3.84Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>> Rx Timing Deviation	0		9.2.3.7A		_	
>>>UL Timeslot Information	М		9.2.3.13C		_	
>>UL DPCH to be Modified		01			YES	ignore
>>>Repetition Period	0		9.2.3.7		_	
>>>Repetition Length	0		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>UL Timeslot Information		0 <maxno0 fTS&gt;</maxno0 		Applicable to 3.84Mcps TDD only	_	
>>>Time Slot	M		9.2.1.56		_	
>>>>Midamble Shift And Burst Type	0		9.2.3.4		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>UL Code Information		0 <maxno0 fDPCHs&gt;</maxno0 			_	
>>>>DPCH ID	М		9.2.3.3		_	
>>>>TDD Channelisation Code	0		9.2.3.8		-	
>>>UL Timeslot Information LCR		0 <maxnoo fTSLCR&gt;</maxnoo 		Applicable to 1.28Mcps TDD only	GLOBAL	ignore
>>>Time Slot LCR	М		9.2.3.12a		_	
>>>Midamble Shift LCR	0		9.2.3.4C		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>UL Code		0 <maxnoo< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxnoo<>			GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	Description		Criticality
Information LCR		fDPCHLCR>				
>>>>DPCH ID	М		9.2.3.3		ı	
>>>>TDD Channelisation Code LCR	0		9.2.3.8a		-	
>>>> TDD UL DPCH Time Slot Format LCR	0		9.2.3.10C		YES	reject
>>UL DPCH to be Deleted		0 <maxnoof DPCHs&gt;</maxnoof 			GLOBAL	ignore
>>>DPCH ID	M		9.2.3.3		_	
>>UL DPCH to be Added LCR		01		Applicable to 1.28Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		1	
>>>Repetition Length	М		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>>UL Timeslot Information LCR	М		9.2.3.13G		-	
>DL CCTrCH Information		0 <maxnoof CCTrCHs&gt;</maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		ı	
>>DL DPCH to be Added		01		Applicable to 3.84Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		ı	
>>>DL Timeslot Information	М		9.2.3.2C		_	
>>DL DPCH to be Modified		01			YES	ignore
>>>Repetition Period	0		9.2.3.7		_	
>>>Repetition Length	0		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>DL Timeslot Information		0 <maxno0 fTS&gt;</maxno0 		Applicable to 3.84Mcps TDD only	-	
>>>>Time Slot	М		9.2.1.56			
>>>Midamble Shift And Burst Type	0		9.2.3.4		ı	
>>>TFCI Presence	0		9.2.1.55		_	
>>>>DL Code Information		0 <maxno0 fDPCHs&gt;</maxno0 			1	
>>>>DPCH ID	M		9.2.3.3		ı	
>>>>TDD Channelisation Code	0		9.2.3.8		-	
>>>DL Timeslot Information LCR		0 <maxno0 fTSLCR&gt;</maxno0 		Applicable to 1.28Mcps TDD only	GLOBAL	ignore
>>>Time Slot LCR	М		9.2.3.12a	ĺ	_	
>>>Midamble Shift LCR	0		9.2.3.4C		-	
>>>TFCI Presence	0		9.2.1.55		_	
>>>DL Code Information LCR		0 <maxno0 fDPCHLCR&gt;</maxno0 			GLOBAL	ignore
>>>>DPCH ID	М		9.2.3.3			
>>>>TDD Channelisation Code LCR	0		9.2.3.8a		ı	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>> TDD DL DPCH Time Slot Format LCR	0		9.2.3.8E		YES	reject
>>>Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>>>>Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore
>>DL DPCH to be Deleted		0 <maxnoof DPCHs&gt;</maxnoof 			GLOBAL	ignore
>>>DPCH ID	M		9.2.3.3		1	
>>DL DPCH to be Added LCR		01		Applicable to 1.28Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		-	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information LCR	M		9.2.3.2E		_	
>>CCTrCH Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only	YES	ignore
>>CCTrCH Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only	YES	ignore
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCH to be Added or Modified		0 <maxnoof DSCHs&gt;</maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		_	
>>Transport Format Management	M		9.2.3.13		ı	
>>DSCH Flow Control Information	М		9.2.1.26B		-	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		-	
>USCH to be Added or Modified		0 <maxnoof USCHs&gt;</maxnoof 			GLOBAL	ignore
>>USCH ID	M		9.2.3.14			
>>Transport Format Management	M		9.2.3.13		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>Uplink Timing Advance Control LCR	0		9.2.3.13K	Applicable to 1.28Mcps TDD only	YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH Information Response	0		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
DSCH-RNTI	0		9.2.1.26Ba		YES	ignore
MAC-hs Reset Indicator	0		9.2.1.34B		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE.
maxnoofUSCHs	Maximum number of USCHs for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps
	TDD.
maxnoofDPCHs	Maximum number of DPCH for a UE for 3.84Mcps
	TDD.
maxnoofTSLCRs	Maximum number of Timeslots for a UE for 1.28Mcps
	TDD.
maxnoofDPCHLCRs	Maximum number of DPCH for a UE for 1.28Mcps
	TDD.
maxnoofRLs	Maximum number of RLs for one UE

#### 9.1.13 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
CFN	M		9.2.1.9		YES	ignore
Active Pattern Sequence Information	0		9.2.2.A	FDD only	YES	ignore

#### 9.1.14 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and 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					_	
>>RLs Causing Reconfiguration Failure		0 <maxnoof RLs&gt;</maxnoof 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range bound	Explanation			
maxnoofRLs	Maximum number of RLs for a UE.			

#### 9.1.15 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	

## 9.1.16 RADIO LINK RECONFIGURATION REQUEST

#### FDD Message 9.1.16.1

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	Description		Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	roject
Allowed Queuing Time	O		9.2.1.2		YES	reject
UL DPCH Information	+	01	0.2.1.2		YES	reject
>TFCS	0	01	9.2.1.63	TFCS for the	-	roject
7.1.00			0.2.1.00	UL.		
DL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.63	TFCS for the DL.	-	,
>TFCI Signalling Mode	0		9.2.2.46		ı	
>Limited Power Increase	0		9.2.2.21A		_	
DCHs To Modify	0		FDD DCHs To Modify 9.2.2.13C		YES	reject
DCHs To Add	0		DCH FDD Information 9.2.2.4A		YES	reject
DCHs To Delete		0 <maxno ofDCHs&gt;</maxno 			GLOBAL	reject
>DCH ID	М		9.2.1.16		-	
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
RL Information		0 <maxno ofRLs&gt;</maxno 			EACH	ignore
>RL ID	M		9.2.1.49		ı	
>RL Specific DCH Information	0		9.2.1.49A		-	
DL Reference Power Information	0		9.2.2.10C		YES	ignore
UE Support Of Dedicated Pilots For Channel Estimation	0		9.2.2.50A		YES	ignore
UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH	0		9.2.2.50B		YES	ignore
HS-DSCH Information	0		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-DSCH Information To Modify Unsynchronised	0		9.2.1.30NA		YES	reject
HS-DSCH MAC-d Flows To Add	0		HS-DSCH MAC-d Flows Information 9.2.1.300A		YES	reject
HS-DSCH MAC-d Flows To Delete	0		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	0		RL ID 9.2.1.49		YES	reject

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.
maxnoofRLs	Maximum number of RLs for a UE.

# 9.1.16.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL CCTrCH Information To Modify		0 <maxnoof CCTrCHs&gt;</maxnoof 			EACH	notify
>CCTrCH ID	М	001101132	9.2.3.2		_	
>TFCS	O		9.2.1.63			
>UL SIR Target	0		Uplink SIR 9.2.1.69	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH Information to Delete		0 <maxnoof CCTrCHs&gt;</maxnoof 			EACH	notify
>CCTrCH ID	M		9.2.3.2		ı	
DL CCTrCH Information To Modify		0 <maxnoof CCTrCHs&gt;</maxnoof 			EACH	notify
>CCTrCH ID	М		9.2.3.2		-	
>TFCS	0		9.2.1.63		_	
DL CCTrCH Information to Delete		0 <maxnoof CCTrCHs&gt;</maxnoof 			EACH	notify
>CCTrCH ID	M	001101101	9.2.3.2		_	
DCHs To Modify	Ö		TDD DCHs To Modify 9.2.3.8B		YES	reject
DCHs To Add	0		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		0 <maxnoof DCHs&gt;</maxnoof 			GLOBAL	reject
>DCH ID	M		9.2.1.16		_	
RL Information		0 <maxnoof RLs&gt;</maxnoof 			YES	ignore
>RL ID	М		9.2.1.49		-	
>RL Specific DCH Information	0		9.2.1.49A		-	
UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>Uplink Synchronisation Step Size	M		9.2.3.13J		ı	
>Uplink Synchronisation Frequency	M		9.2.3.131		_	
HS-DSCH Information	0		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-DSCH Information To Modify Unsynchronised	0		9.2.1.30NA		YES	reject
HS-DSCH MAC-d Flows To Add	0		HS-DSCH MAC-d Flows Information 9.2.1.300A		YES	reject
HS-DSCH MAC-d Flows To Delete	0		9.2.1.30OB		YES	reject
HS-PDSCH RL ID	0		RL ID 9.2.1.49		YES	reject

Range Bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofDCHs	Maximum number of DCHs for one UE.
maxnoofRLs	Maximum number of RLs for one UE

#### 9.1.17 RADIO LINK RECONFIGURATION RESPONSE

#### 9.1.17.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information Response		0 <maxno ofRLs&gt;</maxno 			EACH	ignore
>RL ID	M		9.2.1.49		ı	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		-	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		-	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DL Code Information	0		FDD DL Code Information 9.2.2.14A		YES	ignore
>DL Power Balancing Updated Indicator	0		9.2.2.10D		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore
HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
MAC-hs Reset Indicator	0		9.2.1.34B		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

# 9.1.17.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	- <b>,</b>
RL Information Response		0 <maxno ofRLs&gt;</maxno 		See note 1 below	YES	ignore
>RL ID	M		9.2.1.49		-	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DL CCTrCH Information		0 <maxno ofCCTrCH s&gt;</maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2			
>>DL DPCH To Modify LCR		01		Applicable to 1.28Mcps TDD only	YES	ignore
>>>DL Timeslot Information LCR		0 <maxno OfTSLCR &gt;</maxno 			-	
>>>>Time Slot LCR	М		9.2.3.12a		_	
>>>>Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH	-	
>>>>Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH	-	
>>CCTrCH Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only	YES	ignore
>>CCTrCH Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only	YES	ignore
>Uplink Timing Advance Control LCR	0		9.2.3.13K	Applicable to 1.28Mcps TDD only	YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	ignore
HS-DSCH Information Response	0		HS-DSCH TDD Information Response		YES	ignore
			9.2.3.3ab			
MAC-hs Reset Indicator	0		9.2.1.34B		YES	ignore

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2 through maxnoofRLs are represented by separate ASN.1 structures with different criticalities.

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTSLCRs	Maximum number of Timeslots for a UE for 1.28Mcps
	TDD.
maxnoofRLs	Maximum number of RLs for one UE

#### 9.1.18 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
CHOICE Reporting Object	M			Object for which the Failure shall be reported.	YES	ignore
>RL					_	
>>RL Information		1 <maxnoofrl s&gt;</maxnoofrl 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
>RLS				FDD only	_	
>>RL Set Information		1 <maxnoofrl Sets&gt;</maxnoofrl 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>>>Cause	M		9.2.1.5		_	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.49		_	
>>CCTrCH List		1 <maxnoc CTrCHs&gt;</maxnoc 			EACH	ignore
>>>CCTrCH ID	M		9.2.3.2		_	
>>>Cause	М		9.2.1.5		_	<u> </u>

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofRLSets	Maximum number of RL Sets for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

## 9.1.19 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Managara Tura	M				VEC	:
Message Type			9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59	0.1	-	
CHOICE Reporting Object	M			Object for	YES	ignore
				which the		
				Restoration		
				shall be		
				reported.		
>RL				TDD only	ı	
>>RL Information		1			EACH	ignore
		<maxno< td=""><td></td><td></td><td></td><td>-</td></maxno<>				-
		ofRLs>				
>>>RL ID	M		9.2.1.49		_	
>RLS				FDD only	_	
>>RL Set Information		1		_	EACH	ignore
		<maxno< td=""><td></td><td></td><td></td><td>J</td></maxno<>				J
		ofRLSet				
		s>				
>>>RL Set ID	М		9.2.2.35		_	
>CCTrCH				TDD only		
>>RL ID	М		9.2.1.49		_	
>>CCTrCH List		1 <max< td=""><td></td><td></td><td>EACH</td><td>ignore</td></max<>			EACH	ignore
		noCCTr				.5
		CHs>				
>>>CCTrCH ID	М		9.2.3.2		_	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofRLSets	Maximum number of RL Sets for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

# 9.1.20 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	_
Power Adjustment Type	M		9.2.2.28		YES	ignore
DL Reference Power	C- Common		DL Power 9.2.1.21A		YES	ignore
Inner Loop DL PC Status	0		9.2.2.21a		YES	ignore
DL Reference Power Information	C- Individual	1 <maxnoo fRLs&gt;</maxnoo 			EACH	ignore
>RL ID	M		9.2.1.49		_	
>DL Reference Power	M		DL Power 9.2.1.21A		_	
Max Adjustment Step	C- CommonO rIndividual		9.2.2.23		YES	ignore
Adjustment Period	C- CommonO rIndividual		9.2.2.B		YES	ignore
Adjustment Ratio	C- CommonO rIndividual		9.2.2.C		YES	ignore

Condition	Explanation
Common	The IE shall be present if the Power Adjustment Type IE is set to
	'Common'.
Individual	The IE shall be present if the Power Adjustment Type IE is set to
	'Individual'.
CommonOrIndividual	The IE shall be present if the Power Adjustment Type IE is set to
	'Common' or 'Individual'.

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.

#### 9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

## 9.1.21.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1			YES	reject
>RL ID	М		9.2.1.49		_	
>DL Code Information	М		FDD DL Code Information 9.2.2.14A		YES	notify

# 9.1.21.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
RL Information		1			YES	reject
>RL ID	M		9.2.1.49		_	
>UL CCTrCH Information		0 <maxnoof CCTrCHs&gt;</maxnoof 			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		_	
>>UL DPCH Information		1			YES	notify
>>>Repetition Period	0		9.2.3.7		_	•
>>>Repetition Length	0		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>UL Timeslot Information		0 <maxno OfTS&gt;</maxno 		Applicable to 3.84Mcps TDD only	-	
>>>>Time Slot	M		9.2.1.56		_	
>>>Midamble Shift And Burst Type	0		9.2.3.4		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>>UL Code Information	0		TDD UL Code Information 9.2.3.10A		I	
>>>UL Timeslot Information LCR		0 <maxno OfTSLCR &gt;</maxno 		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.12a		-	
>>>Midamble Shift LCR	0		9.2.3.4C		-	
>>>>TFCI Presence	0		9.2.1.55		_	
>>>>UL Code Information LCR	0		TDD UL Code Information LCR 9.2.3.10B		ı	
>DL CCTrCH Information		0 <maxno ofCCTrCH s&gt;</maxno 			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		_	
>>DL DPCH Information		1			YES	notify
>>>Repetition Period	0		9.2.3.7			
>>>Repetition Length	0		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>DL Timeslot Information		0 <maxno OfTS&gt;</maxno 		Applicable to 3.84Mcps TDD only	I	
>>>>Time Slot	М		9.2.1.56			
>>>Midamble Shift And Burst Type	0		9.2.3.4		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>>DL Code Information	0		TDD DL Code Information 9.2.3.8C		-	
>>>DL Timeslot Information LCR		0 <maxno OfTSLCR &gt;</maxno 		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	М		9.2.3.12a		1	
>>>Midamble Shift LCR	0		9.2.3.4C		_	
>>>TFCI Presence	0	1	9.2.1.55		_	

>>>DL Code Information LCR	0		TDD DL Code Information LCR 9.2.3.8D		-	
>HS-PDSCH Timeslot Specific Information		0 <maxno ofDLts&gt;</maxno 		Applicable to 3.84Mcps TDD only.	GLOBAL	reject
>>Time Slot	M		9.2.1.56	-	_	
>>Midamble Shift And Burst Type	М		9.2.3.4		-	
>HS-PDSCH Timeslot Specific Information LCR		0 <maxno ofDLtsLCR &gt;</maxno 		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>Time Slot LCR	М		9.2.3.12a		_	
>>Midamble Shift LCR	М		9.2.3.4C		_	

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD.
maxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD.
maxnoofDLts	Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD.
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

#### 9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and	Description		Criticality
			Reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
CFN	M		9.2.1.9		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

#### 9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ianore

## 9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

## 9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
UC-ID	M		9.2.1.71		YES	ignore
SAI	М		9.2.1.52		YES	ignore
Cell GAI	0		9.2.1.5A		YES	ignore
C-RNTI	М		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
Propagation Delay	M		9.2.2.33		YES	ignore
STTD Support Indicator	М		9.2.2.45		YES	ignore
Closed Loop Mode1 Support Indicator	М		9.2.2.2		YES	ignore
Closed Loop Mode2 Support Indicator	M		9.2.2.3		YES	ignore
L3 Information	М		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
DPC Mode Change Support Indicator	0		9.2.2.56		YES	ignore
Common Transport Channel Resources Initialisation Not Required	0		9.2.1.12F		YES	Ignore
Cell Capability Container FDD	0		9.2.2.D		YES	ignore
SNA Information	0		9.2.1.52Ca		YES	ignore

#### 9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	<b>J</b>
UC-ID	М		9.2.1.71		YES	ignore
SAI	М		9.2.1.52		YES	ignore
Cell GAI	0		9.2.1.5A		YES	Ignore
C-RNTI	М		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
Rx Timing Deviation	M		9.2.3.7A		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
Common Transport Channel Resources Initialisation Not Required	0		9.2.1.12F		YES	ignore
Cell Capability Container TDD	0		9.2.3.1a	Applicable to 3.84Mcps TDD only	YES	ignore
Cell Capability Container TDD LCR	0		9.2.3.1b	Applicable to 1.28Mcps TDD only	YES	ignore
SNA Information	0		9.2.1.52Ca		YES	ignore

## 9.1.24A GERAN UPLINK SIGNALLING TRANSFER INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	Ŭ
UC-ID	M		9.2.1.71	UC-ID may be a GERAN cell identifier.	YES	ignore
SAI	M		9.2.1.52		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B	URA information may be GRA information	YES	ignore

## 9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
C-ID	M		9.2.1.6	May be a GERAN cell identifier	YES	ignore
D-RNTI	М		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
D-RNTI Release Indication	M		9.2.1.25		YES	ignore

#### 9.1.26 RELOCATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
D-RNTI	0		9.2.1.24		YES	ignore
RANAP Relocation Information	0		9.2.1.47		YES	ignore

## 9.1.27 PAGING REQUEST

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and	Description		Criticality
			Reference			
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		1	
CHOICE Paging Area	M				YES	ignore
>URA					_	
>>URA-ID	M		9.2.1.70	May be a	_	
				GRA-ID.		
>Cell				UTRAN only	1	
>>C-ID	M		9.2.1.6		ı	
SRNC-ID	M		RNC-ID	May be a	YES	ignore
			9.2.1.50	BSC-ID.		
S-RNTI	M		9.2.1.53		YES	ignore
IMSI	M		9.2.1.31		YES	ignore
DRX Cycle Length Coefficient	M		9.2.1.26		YES	ignore
CN Originated Page to		01			YES	ignore
Connected Mode UE						
>Paging Cause	M		9.2.1.41E		_	
>CN Domain Type	M		9.2.1.11A		_	
>Paging Record Type	M		9.2.1.41F		_	

## 9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	reject
CHOICE Dedicated	M				YES	reject
Measurement Object Type						
>RL					_	
>>RL Information		1 <maxn oofRLs&gt;</maxn 			EACH	reject
>>>RL-ID	M		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	_	
>>>HS-SICH Information		0 <maxn oofHSSI CHs&gt;</maxn 		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.3ad		_	
>RLS				FDD only	_	
>>RL Set Information		1 <maxn oofRLSet s&gt;</maxn 			EACH	reject
>>>RL-Set-ID	М		9.2.2.35		_	
>ALL RL			NULL		_	
>ALL RLS			NULL	FDD only	_	
Dedicated Measurement Type	М		9.2.1.18	,	YES	reject
Measurement Filter Coefficient	0		9.2.1.36		YES	reject
Report Characteristics	М		9.2.1.48		YES	reject
CFN reporting indicator	М		FN reporting indicator 9.2.1.28A		YES	reject
CFN	0		9.2.1.9		YES	reject
Partial Reporting Indicator	0		9.2.1.41Fa		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started
	on.

#### 9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE Dedicated Measurement Object Type	0			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1	_	
>>RL Information		1 <maxno ofRLs&gt;</maxno 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	_	
>>>Dedicated Measurement Value	M		9.2.1.19		_	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	-	
>>>HS-SICH ID	0		9.2.3.3ad	TDD only	YES	reject
>RLS or ALL RLS				FDD only See Note 2	_	,
>>RL Set Information		1 <maxno ofRLSets&gt;</maxno 			EACH	ignore
>>>RL Set ID	М		9.2.2.35		-	
>>>Dedicated Measurement Value	M		9.2.1.19			
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	_	
Criticality Diagnostics	0		9.2.1.13		YES	Ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started
	on.

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

## 9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Measurement ID	М		9.2.1.37		YES	ignore
Cause	М		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
CHOICÉ Dedicated Measurement Object Type	0			Dedicated Measuremen t Object Type the measuremen t was initiated with	YES	ignore
>RL or ALL RL					_	
>>Unsuccessful RL Information		1 <maxno ofRLs&gt;</maxno 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Individual Cause	0		Cause 9.2.1.5		-	
>>Successful RL Information		0 <maxno ofRLs-1&gt;</maxno 			EACH	ignore
>>>RL ID	М		9.2.1.49		-	
>>>DPCH ID	0		9.2.3.3	TDD only	ı	
>>>Dedicated Measurement Value	М		9.2.1.19		-	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	-	
>>>HS-SICH ID	0		9.2.3.3ad	TDD only	YES	reject
>RLS or ALL RLS				FDD only	-	
>>Unsuccessful RL Set Information		1 <maxno ofRLSets&gt;</maxno 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>>>Individual Cause	0		Cause 9.2.1.5		1	
>>Successful RL Set Information		0 <maxno ofRLSets- 1&gt;</maxno 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		-	
>>>Dedicated Measurement Value	М		9.2.1.19		_	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	-	

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started
	on.

#### 9.1.31 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE Dedicated Measurement Object Type	M			Dedicated Measuremen t Object Type the measuremen t was initiated with	YES	ignore
>RL or ALL RL				See Note 1	-	
>>RL Information		1 <maxnoo fRLs&gt;</maxnoo 			EACH	ignore
>>>RL-ID	М		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	ı	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		-	
>>>HS-SICH ID	0		9.2.3.3ad	TDD only	YES	ignore
>RLS or ALL RLS				FDD only See Note 2	-	
>>RL Set Information		1 <maxnoo fRLSets&gt;</maxnoo 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		1	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		1	

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started
	on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

#### 9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	ignore

## 9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
CHOICE Dedicated Measurement Object Type	0			Dedicated Measuremen t Object Type the measuremen t was initiated with	YES	ignore
>RL or ALL RL					_	
>>Unsuccessful RL Information		1 <maxnoof RLs&gt;</maxnoof 			EACH	ignore
>>>RL ID	М		9.2.1.49		1	
>>>Individual Cause	0		Cause 9.2.1.5		_	
>RLS or ALL RLS				FDD only	ı	
>>Unsuccessful RL Set Information		1 <maxnoof RLSets&gt;</maxnoof 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		ı	
>>>Individual Cause	0		Cause 9.2.1.5		_	

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started
	on.

# 9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	•		
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
D-RNTI	M		9.2.1.24		YES	ignore

## 9.1.35 COMMON TRANSPORT CHANNEL RESOURCES REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
D-RNTI	M		9.2.1.24		YES	reject
C-ID	0		9.2.1.6		YES	reject
Transport Bearer Request Indicator	M		9.2.1.61	Request a new transport bearer or to use an existing bearer for the user plane.	YES	reject
Transport Bearer ID	M		9.2.1.60	Indicates the lur transport bearer to be used for the user plane.	YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore
Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore

#### 9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

#### 9.1.36.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
S-RNTI	M		9.2.1.53		YES	ignore
C-RNTI	0		9.2.1.14		YES	ignore
FACH Info for UE Selected S-CCPCH		1			YES	ignore
>FACH Flow Control Information	М		9.2.1.26C		YES	ignore
Transport Layer Address	0		9.2.1.62		YES	ignore
Binding Identity	0		9.2.1.3		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
C-ID	M		9.2.1.6		YES	ignore

#### 9.1.36.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
S-RNTI	М		9.2.1.53		YES	ignore
C-RNTI	0		9.2.1.14		YES	ignore
FACH Info for UE Selected S-CCPCHs		1			YES	ignore
>FACH Flow Control Information	М		9.2.1.26C		YES	ignore
Transport Layer Address	0		9.2.1.62		YES	ignore
Binding Identity	0		9.2.1.3		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
C-ID	М		9.2.1.6		YES	ignore

#### 9.1.37 COMMON TRANSPORT CHANNEL RESOURCES FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
S-RNTI	M		9.2.1.53		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

# 9.1.38 COMPRESSED MODE COMMAND [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Active Pattern Sequence Information	М		9.2.2.A		YES	ignore

#### 9.1.39 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Cause	0		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
S-RNTI	0		9.2.1.53		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore

# 9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
DL Time Slot ISCP Info	0		9.2.3.2D	Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
DL Time Slot ISCP Info LCR	0		9.2.3.2F	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD	YES	ignore
Primary CCPCH RSCP	0		9.2.3.5		YES	ignore
Primary CCPCH RSCP Delta	0		9.2.3.5a		YES	ignore

#### 9.1.41 RADIO LINK PREEMPTION REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
RL Information		0 <maxno ofRLs&gt;</maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
HS-DSCH MAC-d Flow Specific Information		0 <maxno ofMACdFl ows&gt;</maxno 			EACH	ignore
>HS-DSCH MAC-d Flow ID	М		9.2.1.300		_	

Range bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows

#### 9.1.42 RADIO LINK CONGESTION INDICATION

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	-		
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Congestion Cause	0		9.2.1.79		YES	ignore
RL Information		1 <maxno ofRLs&gt;</maxno 			EACH	ignore
>RL ID	M		9.2.1.49		-	
>DCH Rate Information		1 <maxno ofDCHs&gt;</maxno 			EACH	ignore
>>DCH ID	M		9.2.1.16		_	
>>Allowed Rate Information	0		9.2.1.2A		_	

Range bound	Explanation
maxnoofRLs	Maximum number of Radio Links for one UE
maxnoofDCHs	Maximum number of DCHs for one UE.

## 9.1.43 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	reject
CHOICE Common Measurement Object Type	М				YES	reject
>Cell >>Reference Cell Identifier	M		UTRAN Cell Identifier 9.2.1.71	May be a GERAN Cell Identifier		
>>Time Slot	0		9.2.1.56	3.84Mcps TDD only	_	
>>Time Slot LCR	0		9.2.3.12a	1.28Mcps TDD only	_	
>>Neighbouring Cell Measurement Information		0 <maxnoof MeasNCells &gt;</maxnoof 		UTRAN only	_	
>>>CHOICE Neighbouring Cell Measurement Information					-	
>>>Neighbourin g FDD Cell Measurement Information				FDD only	-	
>>>>Neighbo uring FDD Cell Measurement Information	М		9.2.1.41G		_	
>>>Neighbourin g TDD Cell Measurement Information				3.84Mcps TDD only	-	
>>>>Neighbo uring TDD Cell Measurement Information	M		9.2.1.41H		_	
>>>>Additional Neighbouring Cell Measurement Information					_	
>>>>Neighbo uring TDD Cell Measurement InformationLC R				1.28Mcps TDD only	-	
>>>>>Neig hbouring TDD Cell Measureme nt	М		9.2.1.41Dd		YES	reject
InformationL CR Common Measurement	M		9.2.1.12C		YES	reject
Type Measurement Filter	0		9.2.1.41	UTRAN only	YES	reject
Coefficient			0.2.1.11	3	5	. 0,000
Report Characteristics	М		9.2.1.48		YES	reject
SFN reporting indicator	M		FN reporting indicator		YES	reject

		9.2.1.28A			
SFN	0	9.2.1.52A	UTRAN only	YES	reject
Common Measurement	0	9.2.1.12A	UTRAN only	YES	reject
Accuracy					

Range bound	Explanation
maxnoofMeasNCell	Maximum number of neighbouring cells on which
	measurements can be performed.

## 9.1.44 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	•
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE Common Measurement Object Type	0			Common Measuremen t Object Type that the measuremen t was initiated with.	YES	ignore
>Cell					ı	
>>Common Measurement value	М		9.2.1.12D		-	
SFN	0		9.2.1.52A	Common Measuremen t Time Reference, UTRAN only.	YES	ignore
Criticality Diagnostics	0		9.2.1.13	·	YES	ignore
Common Measurement Achieved Accuracy	0		Common Measurem ent Accuracy 9.2.1.12A	UTRAN only	YES	ignore

## 9.1.45 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		-	
Measurement ID	М		9.2.1.37		YES	ignore
Cause	М		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

## 9.1.46 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		I	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE Common Measurement Object Type	М			Common Measuremen t Object Type that the measuremen t was initiated with.	YES	ignore
>Cell					_	
>>Common Measurement Value Information	M		9.2.1.12E		-	
SFN	0		9.2.1.52A	Common Measuremen t Time Reference, UTRAN only.	YES	ignore

## 9.1.47 COMMON MEASUREMENT TERMINATION REQUEST

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

## 9.1.48 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	
Measurement ID	М		9.2.1.37		YES	ignore
Cause	М		9.2.1.5		YES	ignore

## 9.1.49 INFORMATION EXCHANGE INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	•		
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
Information Exchange ID	M		9.2.1.31A		YES	reject
CHOICE Information Exchange Object Type	M				YES	reject
>Cell					_	
>>C-ID	M		9.2.1.6	May be a GERAN cell identifier	I	
Information Type	M		9.2.1.31E		YES	reject
Information Report Characteristics	M		9.2.1.31C		YES	reject

## 9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE Information Exchange Object Type	0				YES	ignore
>Cell					-	
>>Requested Data Value	М		9.2.1.48A		-	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

## 9.1.51 INFORMATION EXCHANGE INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	•
Information Exchange ID	M		9.2.1.31A		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

## 9.1.52 INFORMATION REPORT

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	•		
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		1	
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE Information Exchange Object Type	М				YES	ignore
>Cell					_	
>>Requested Data Value Information	M		9.2.1.48B		1	

# 9.1.53 INFORMATION EXCHANGE TERMINATION REQUEST

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

## 9.1.54 INFORMATION EXCHANGE FAILURE INDICATION

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

## 9.1.55 RESET REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantic s Descripti on	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RNC-ID	М		9.2.1.50	Identity of the sending RNC	YES	reject
CHOICE Reset Indicator	M				YES	reject
>Context					-	
>>Context Information		1 <maxre setContext &gt;</maxre 			EACH	reject
>>>CHOICE Context Type	M				_	
>>>SRNTI					_	
>>>>S-RNTI	M		9.2.1.53		_	
>>>DRNTI					_	
>>>>D-RNTI	M		9.2.1.24		_	
>All Contexts			NULL		_	
>Context Group					_	
>>Context Group Information		1 <maxre setContext Groups&gt;</maxre 			EACH	reject
>>>S-RNTI Group	M		9.2.1.53a		_	

Range bound	Explanation
maxResetContext	Maximum number of contexts that can be reset by
	one RESET message.
maxResetContextGroups	Maximum number of context groups that can be reset
	by one RESET message.

## 9.1.56 RESET RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
RNC-ID	М		9.2.1.50	Identity of the sending RNC	YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

# 9.1.57 RADIO LINK ACTIVATION COMMAND

## 9.1.57.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
Delayed activation		1 <maxnoofrl< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoofrl<>			EACH	ignore
Information		S>				
>RL ID	М		9.2.1.49		-	
>Delayed Activation	М		9.2.1.19Ab		-	
Update						

# 9.1.57.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.46	•	YES	ignore
Transaction ID	М		9.2.1.62		_	
Delayed activation		1 <maxnoofrl< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoofrl<>			EACH	ignore
Information		S>				
>RL ID	М		9.2.1.49		-	
>Delayed Activation	М		9.2.1.19Ab		-	
Update						

## 9.1.58 RADIO LINK PARAMETER UPDATE INDICATION

#### 9.1.58.1 FDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
HS-DSCH FDD Update Information	0		9.2.2.19c		YES	ignore
RL Information		0 <max noofRLs &gt;</max 			EACH	ignore
>RL ld	M		9.2.1.49		_	
>Phase Reference Update Indicator	0		9.2.2.27B		_	

#### 9.1.58.2 TDD Message

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
HS-DSCH TDD Update Information	0		9.2.3.3ac		YES	ignore

## 9.2 Information Element Functional Definition and Contents

#### 9.2.0 General

Subclause 9.2 presents the RNSAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is a contradiction between the tabular format in subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

## 9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

#### 9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise

requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible. See Annex A.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Priority Level	M		INTEGER(0.	This IE indicates the priority of
			.15)	the request.
				Usage <u>:</u>
				Value "0" means "Spare"; It
				shall be treated as a logical
				error if received.
				Values between 1 and 14 are
				ordered in decreasing order of
				priority, '1' being the highest
				and '14' the lowest.
				Value "15" means "No
	1		ENUMEDAT.	Priority".
Pre-emption Capability	M		ENUMERAT	
			ED(shall not	
			trigger pre-	
			emption,	
			may trigger	
D (: 1/1 13)	1.4		pre-emption)	
Pre-emption Vulnerability	M		ENUMERAT	
			ED(not pre-	
			emptable,	
			pre-	
			emptable)	

## 9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Allowed Queuing Time			INTEGER(160)	Unit: Seconds

#### 9.2.1.2A Allowed Rate Information

The *Allowed Rate Information* IE indicates the TFI corresponding to the highest allowed bit rate for the uplink and/or the downlink of a DCH. The SRNC is allowed to use any rate being lower than or equal to the rate corresponding to the indicated TFI.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Allowed UL Rate	0		INTEGER(1. .maxTFcount	"1": TFI 0, "2": TFI 1, "3": TFI 2, 
Allowed DL Rate	0		INTEGER(1. .maxTFcount	"1": TFI 0, "2": TFI 1, "3": TFI 2, 

#### 9.2.1.2B Altitude and Direction

This IE contains a description of Altitude and Direction.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Direction of Altitude	М		ENUMERAT ED(Height, Depth)	
Altitude	M		INTEGER( 02 <sup>15</sup> -1)	The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <n+1, except="" for="" n="2&lt;sup">15-1 for which the range is extended to include all grater values of (a).</n+1,>

#### 9.2.1.2C Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Antenna Co-location			ENUMERAT	
Indicator			ED(co-	
			located,)	

## 9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID			OCTET STRING (14,)	If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID.

#### 9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel. BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BLER			INTEGER(- 630)	Step 0.1. (Range –6.30). It is the Log10 of the BLER
			030)	It is the Logio of the BLEK

### 9.2.1.4A Block STTD Indicator

Void.

### 9.2.1.4B Burst Mode Parameters

The Burst Mode Parameters IE provides all the relevant information in order to able IPDL in the Burst mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
Burst Start	M		INTEGER(015)	See [10] and [22]
Burst Length	М		INTEGER(1 025)	See [10] and [22]
Burst freq	М		INTEGER(116)	See [10] and [22]

### 9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Cause Group	М			,
>Radio Network Layer				
>>Radio Network Layer Cause	M		ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, UL Radio Resources not Available, Measurement not Supported For The Object, Combining Resources Not Available, Combining not Supported, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not Elapsed, Number of DL Codes Not Supported, Dedicated Transport Channel Type not Supported, UL Shared Channel Type not Supported, UL Shared Channel Type not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, UL Spreading Factor not Supported, CM not Supported, Transaction not Supported by Destination Node B, RL Already Activated/Allocated,, Number of UL Codes Not Supported, Cell reserved for operator use, DPC Mode Change not Supported, Information temporarily not available, Information Provision not supported, Information Provision not supported, Power Balancing status not compatible, Delayed Activation not Supported, RL Timing Adjustment Not Supported,	
>Transport Layer			Unknown RNTI)	
>>Transport Layer Cause	М		ENUMERATED (Transport Resource Unavailable, Unspecified,)	
>Protocol >>Protocol Cause >Misc	M		ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified, Abstract Syntax Error (Falsely Constructed Message),)	
>>Miscellaneous Cause	M		ENUMERATED (Control Processing Overload, Hardware Failure, O&M Intervention, Not enough User Plane Processing	

	Resources,	
	Unspecified,)	

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

Radio Network Layer cause	Meaning
Cell not Available	The concerned cell is not available
Cell reserved for operator use	The concerned cell is reserved for operator use
Combining not Supported	The DRNS does not support the RL combining for the concerned cells
Combining Resources Not	The value of the received <i>Diversity Control Field</i> IE was set to "Must",
Available	but the DRNS cannot perform the requested combining
CM not Supported	The concerned cell(s) do not support Compressed Mode
Common Transport Channel Type	The concerned cell(s) do not support the RACH and/or FACH and/or
not Supported	CPCH Common Transport Channel Type
Dedicated Transport Channel Type	The concerned cell(s) do not support the Dedicated Transport Channel
not Supported	Туре
Delayed Activation not Supported	The concerned cell(s) do not support delayed activation of RLs
DL Radio Resources not Available	The DRNS does not have sufficient DL radio resources available
DL SF not Supported	The concerned cell(s) do not support the requested DL SF
DL Shared Channel Type not	The concerned cell(s) do not support the Downlink Shared Channel Type
Supported	
DPC Mode Change not Supported	The concerned cells do not support the DPC mode changes
Information Provision not	The RNS doesn"t support provision of the requested information for the
supported for the object	concerned object types
Information temporarily not	The RNS can temporarily not provide the requested information
available	
Invalid CM Settings	The concerned cell(s) consider the requested Compressed Mode settings
	invalid
Measurement not Supported For	At least one of the concerned cell(s) does not support the requested
The Object	measurement on the concerned object type
Measurement Temporarily not	The DRNS can temporarily not provide the requested measurement value
Available	
Number of DL Codes not	The concerned cell(s) do not support the requested number of DL codes
Supported	
Number of UL Codes not	The concerned cell(s) do not support the requested number of UL codes
Supported	
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not
	support
Power Balancing status not	The power balancing status in the SRNC is not compatible with that of
compatible	the DRNC.
RL Timing Adjustment not	The concerned cell(s) do not support adjustments of the RL timing
Supported	
Reconfiguration CFN not Elapsed	The requested action cannot be performed due to that a COMMIT
	message was received previously, but the concerned CFN has not yet
Description not Allowed	The SPNC does compatible not allow the requested reconfiguration
Reconfiguration not Allowed	The SRNC does currently not allow the requested reconfiguration
Requested Configuration not Supported	The concerned cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters,
Requested Tx Diversity mode not	The concerned cell(s) do not support the requested transmit diversity
Supported	mode
RL Already Activated/ Allocated	The DRNS has already allocated an RL with the requested RL ID for this
<u> </u>	UE Context
Synchronisation Failure	Loss of UL Uu synchronisation

Transaction not Supported by	The requested action cannot be performed due to lack of support of the
Destination Node B	corresponding action in the destination Node B
UL Radio Resources not Available	The DRNS does not have sufficient UL radio resources available
UL Scrambling Code Already in	The concerned UL scrambling code is already in use for another UE
Use	
UL SF not Supported	The concerned cell(s) do not support the requested minimum UL SF
UL Shared Channel Type not	The concerned cell(s) do not support the Uplink Shared Channel Type
Supported	
Unknown C-ID	The DRNS is not aware of a cell with the provided C-ID
Unknown RNTI	The SRNC or DRNC is not aware of a UE indicated with the provided
	RNTI
Unspecified	Sent when none of the above cause values applies but still the cause is
	Radio Network Layer related

Transport Network Layer cause	Meaning	
Transport resource unavailable	The required transport resources are not available	
Unspecified	Sent when none of the above cause values applies but still the cause is	
	Transport Network Layer related	

Protocol cause	Meaning
Abstract Syntax Error (Reject)	The received message included an abstract syntax error and the
	concerned criticality indicated "reject" (see subclause 10.3)
Abstract Syntax Error (Ignore and	The received message included an abstract syntax error and the
Notify)	concerned criticality indicated "ignore and notify" (see subclause 10.3)
Abstract syntax error (falsely	The received message contained IEs or IE groups in wrong order or with
constructed message)	too many occurrences (see subclause 10.3)
Message not Compatible with	The received message was not compatible with the receiver state (see
Receiver State	subclause 10.4)
Semantic Error	The received message included a semantic error (see subclause 10.4)
Transfer Syntax Error	The received message included a transfer syntax error (see subclause
	10.2)
Unspecified	Sent when none of the above cause values applies but still the cause is
	Protocol related

Miscellaneous cause	Meaning
Control Processing Overload	DRNS control processing overload
Hardware Failure	DRNS hardware failure
Not enough User Plane Processing	DRNS has insufficient user plane processing resources available
Resources	
O&M Intervention	Operation and Maintenance intervention related to DRNS equipment
Unspecified	Sent when none of the above cause values applies and the cause is not
	related to any of the categories Radio Network Layer, Transport Network
	Layer or Protocol.

## 9.2.1.5A Cell Geographical Area Identity (Cell GAI)

The Cell Geographical Area is used to identify the geographical area of a cell. The area is represented as a polygon. See ref. [25].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell GAI Geographical Co-ordinates		1 <maxnoofpoints></maxnoofpoints>		
>Latitude Sign	M		ENUMERAT ED(North, South)	
>Degrees of Latitude	M		INTEGER( 02 <sup>23</sup> -1)	The IE value (N) is derived by this formula: N≤2 <sup>23</sup> X /90 < N+1 X being the latitude in degree (0° 90°)
>Degrees of Longitude	M		INTEGER( -2 <sup>23</sup> 2 <sup>23</sup> -1)	The IE value (N) is derived by this formula: N≤2 <sup>24</sup> X /360 < N+1 X being the longitude in degree (-180°+180°)

Range bound	Explanation
maxnoofPoints	Maximum no. of points in polygon.

## 9.2.1.5B Cell Geographical Area Additional Shapes (Cell GAI Additional Shapes)

This IE is used to provide several descriptions of the geographical area of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Cell GAI				
Additional Shapes				
>GA Point With				
Uncertainty				
>>GA Point With	M		9.2.1.30A	Ellipsoid point with
Uncertainty				uncertainty circle
>GA Ellipsoid point				
with uncertainty Ellipse				
>>GA Ellipsoid	M		9.2.1.30B	Ellipsoid point with
point with uncertainty				uncertainty Ellipse
Ellipse				
>GA Ellipsoid point				
with altitude				
>>GA Ellipsoid	M		9.2.1.30C	Ellipsoid point with altitude
point with altitude				
>GA Ellipsoid point				
with altitude and				
uncertainty Ellipsoid				
>>GA Ellipsoid	M		9.2.1.30D	Ellipsoid point with altitude
point with altitude				and uncertainty Ellipsoid
and uncertainty				
Ellipsoid				
>GA Ellipsoid Arc				
>>GA Ellipsoid Arc	M		9.2.1.30E	Ellipsoid Arc

## 9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. *Cell Capacity Class Value* IE is the value that classifies the cell capacity with regards to the other cells. *Cell Capacity Class Value* IE only indicates resources that are configured for traffic purposes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Cell Capacity Class Value	M		INTEGER(1100,)	Value 1 shall indicate the minimum uplink cell capacity, and 100 shall indicate the maximum uplink cell capacity.  There should be linear relation between uplink cell capacity and Uplink Cell Capacity Class Value.
Downlink Cell Capacity Class Value	M		INTEGER(1100,)	Value 1 shall indicate the minimum downlink cell capacity, and 100 shall indicate the maximum downlink cell capacity. There should be linear relation between downlink cell capacity and Downlink Cell Capacity Class Value.

## 9.2.1.6 Cell Identifier (C-ID)

The C-ID (Cell Identifier) is the identifier of a cell in one RNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-ID			INTEGER	
			(065535)	

### 9.2.1.7 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a Primary-CPICH[FDD]/ Primary-CCPCH[TDD] or for GSM Carrier RSSI according to [16].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Cell Individual Offset			INTEGER(	-20 -> -10dB
			-20+20)	-19 -> -9.5dB
				+20 -> +10dB

### 9.2.1.8 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Parameter ID			INTEGER(0127,)	

#### 9.2.1.9 CFN

Connection Frame Number for the radio connection, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CFN			INTEGER(0. . 255)	

## 9.2.1.10 CFN Offset

Void

## 9.2.1.11 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed

## 9.2.1.11A CN Domain Type

Identifies the type of core network domain.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CN Domain Type			ENUMERAT ED(CS domain, PS domain,	See in [16]
			Don't care,)	

## 9.2.1.12 CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	М		OCTET STRING (2)	0000 and FFFE not allowed
RAC	М		OCTET STRING (1)	

## 9.2.1.12A Common Measurement Accuracy

The Common Measurement Accuracy IE indicates the accuracy of the common measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Common Measurement Accuracy	M			
>T <sub>UTRAN-GPS</sub> Measurement Accuracy Class				
>>T <sub>UTRAN-GPS</sub> Measurement Accuracy Class	М		T <sub>UTRAN-GPS</sub> Accuracy Class 9.2.1.59B	

## 9.2.1.12B Common Measurement Object Type

Void.

## 9.2.1.12C Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Common Measurement Type			ENUMERATED	UL timeslot ISCP shall only
			(UTRAN GPS	be used by TDD.
			Timing of Cell	For measurements, which are
			Frames for UE	requested on the lur-g
			Positioning,	interface, only load, RT Load
			SFN-SFN	and NRT Load information
			Observed Time	are used.
			Difference,	
			load,	
			transmitted	
			carrier power,	
			received total	
			wide band	
			power, UL	
			timeslot ISCP,	
			, RT Load,	
			NRT Load	
			Information)	

## 9.2.1.12D Common Measurement Value

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Common Measurement Value	М			•	-	
> T <sub>UTRAN-GPS</sub> Measurement Value Information				UTRAN only	-	
>>T <sub>UTRAN-GPS</sub> Measurement Value Information	M		9.2.1.59D		ı	
> SFN-SFN Measurement Value Information				UTRAN only	_	
>>SFN-SFN Measurement Value Information	M		9.2.1.52C		ı	
>Load Value					_	
>>Load Value	M		9.2.1.33A		_	
>Transmitted Carrier Power Value				UTRAN only	_	
>>Transmitted Carrier Power Value	М		Transmitted Carrier Power 9.2.1.59A		_	
>Received Total Wide Band Power Value				UTRAN only	-	
>>Received Total Wide Band Power Value	M		Received Total Wide Band Power 9.2.2.35A		_	
>UL Timeslot ISCP Value				TDD Only	_	
>>UL Timeslot ISCP Value	M		UL Timeslot ISCP 9.2.3.13A		-	
>Additional Common Measurement Values					_	
>>RT Load Value					_	
>>>RT Load Value	M		9.2.1.50B		YES	ignore
>>NRT Load Information Value					_	
>>>NRT Load Information Value	M		9.2.1.411		YES	ignore

## 9.2.1.12E Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement	M			
Availability				
>Measurement Available				
>>Common Measurement	M		9.2.1.12D	
Value				
>Measurement not Available			NULL	

## 9.2.1.12F Common Transport Channel Resources Initialisation Not Required

If present, this IE indicates that as far as the DRNC is concerned, there is no need to initiate a Common Transport Channel Resources Initialisation procedure if the SRNC wants to allocate common transport channel resources in the new cell.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Common Transport			ENUMERAT	
Channel Resources			ED(Not	
Initialisation Not Required			Required)	

### 9.2.1.12G Coverage Indicator

The Coverage Indicator indicates whether the serving and the neighbouring cell are overlapped, i.e. the cells have approximately same coverage area or whether the neighbouring cell covers or contained in the serving cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Coverage Indicator			ENUMERAT	
•			ED(Overlap,	
			Covers,	
			Contained	
			in,)	

### 9.2.1.13 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by an RNC when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the Criticality Diagnostics IE, see Annex C.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error	-	•
>Procedure Code	М		INTEGER(0255		-	
>Ddmode	М		ENUMERATED( FDD, TDD, Common)	Common = common to FDD and TDD. Common Ddmode is also applicable for lurg procedures listed in section 7.	-	
Triggering Message	0		ENUMERATED(i nitiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.	-	
Procedure Criticality	0		ENUMERATED(r eject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).	-	
Transaction ID	0		Transaction ID		-	
Information Element Criticality Diagnostics		0 <max noof errors&gt;</max 			-	
>IE Criticality	M		ENUMERATED(r eject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value "Ignore" shall never be used.	-	
>IE ID	M		INTEGER(0655 35)	The IE ID of the not understood or missing IE as defined in the ASN.1 part of the specification.	-	
>Repetition Number	0		INTEGER(0255 )	The Repetition Number IE gives  In case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence  In case of a missing IE: The number of occurrences up to but not including the missing occurrence.  Note: All the counted	-	

			occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.		
>Message Structure	0	9.2.1.39A	The Message Structure IE describes the structure in which the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message.	YES	ignore
>Type of Error	M	ENUMERATED( not understood, missing,)		YES	ignore

Range bound	Explanation			
maxnooferrors	Maximum number of IE errors allowed to be reported with a single			
	message.			

#### 9.2.1.14 C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE Context has one unique C-RNTI value allocated in the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-RNTI			INTEGER(0. .65535)	

### 9.2.1.14A CTFC

The CTFC is an integer number calculated in accordance with [16], subclause 14.10. Regarding the channel ordering, for all transport channels, "TrCH1" corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. "TrCH2" corresponds to the transport channel having the next lowest transport channel identity, and so on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE CTFC Format				
>2 bits long				
>>CTFC value	M		INTEGER (03)	
>4 bits long				
>>CTFC value	M		INTEGER (015)	
>6 bits long				
>>CTFC value	M		INTEGER (063)	
>8 bits long				
>>CTFC value	M		INTEGER (0255)	
>12 bits long				
>>CTFC value	M		INTEGER (04095)	
>16 bits long				
>>CTFC value	M		INTEGER (065535)	
>max nb bits long				
>>CTFC value	M		INTEGER	
			(0maxCTFC)	

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calculated according to the following:
	$\sum_{i=1}^{I} (L_i - 1) P_i$
	with the notation according to ref. [16]

#### 9.2.1.15 DCH Combination Indicator

Void

### 9.2.1.16 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH ID			INTEGER (0255)	

### 9.2.1.16A DCH Information Response

The DCH Information IE provides information for DCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information Response		1 <maxno ofDCHs&gt;</maxno 		Several DCHs belonging to the same set of coordinated DCHs may be included.	-	
>DCH ID	M		9.2.1.16		_	
>Binding ID	0		9.2.1.3		_	
>Transport Layer Address	0		9.2.1.62		_	
>Allowed Rate Information	0		9.2.1.2A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

## 9.2.1.17 Dedicated Measurement Object Type

Void.

## 9.2.1.18 Dedicated Measurement Type

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

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Dedicated Measurement			ENUMERAT	RSCP and HS-SICH
Туре			ED(SIR, SIR	Receptions Quality are used
			Error,	by TDD only, Rx Timing
			Transmitted	Deviation is used by 3.84
			Code Power,	TDD only, Rx Timing
			RSCP, Rx	Deviation LCR is used by
			Timing	1.28 TDD only,
			Deviation,	Round Trip Time, SIR Error
			Round Trip	are used by FDD only.
			Time,, Rx	Angle Of Arrival LCR is used
			Timing	by 1.28Mcps TDD only.
			Deviation	
			LCR, Angle	
			Of Arrival	
			LCR,	
			HS-SICH	
			Reception	
			Quality)	

NOTE: For definitions of the measurement types refer to ref. [11] and [14].

### 9.2.1.19 Dedicated Measurement Value

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Dedicated Measurement Value	М				_	
>SIR Value					_	
>>SIR Value	М		INTEGER( 063)	According to mapping in ref. [23] and [24]	_	
>SIR Error Value				FDD Only	_	
>>SIR Error Value	M		INTEGER( 0125)	According to mapping in [23]	I	
>Transmitted Code Power Value					ı	
>>Transmitted Code Power Value	М		INTEGER( 0127)	According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used.	l	
>RSCP				TDD Only	_	
>>RSCP	M		INTEGER( 0127)	According to mapping in ref. [24]	I	
>Rx Timing Deviation Value				3.84Mcps TDD Only	_	
>>Rx Timing Deviation	M		INTEGER( 08191)	According to mapping in [24]	-	
>Round Trip Time				FDD Only	_	
>>Round Trip Time	М		INTEGER( 032767)	According to mapping in [23]	-	
>Additional Dedicated Measurement Values					_	
>>Rx Timing Deviation Value LCR				1.28Mcps TDD Only	YES	reject
>>>Rx Timing Deviation LCR	М		INTEGER( 0511)	According to mapping in [24]	-	
>>Angle of Arrival Value LCR				1.28Mcps TDD only	YES	reject
>>>AOA LCR	M		INTEGER( 0719)	According to mapping in [24]	-	
>>>AOA LCR Accuracy Class	M		ENUMER ATED(A, B, C, D, E, F, G, H,)	According to mapping in [24]	I	
>>HS-SICH reception quality				Applicable to TDD only	-	
>>>HS-SICH reception quality Value		1			YES	reject
>>>>Failed HS-SICH	M		INTEGER (020)	According to mapping in [24]	_	
>>>Missed HS-SICH	M		INTEGER (020)	According to mapping in [24]	-	
>>>Total HS-SICH	M		INTEGER (020)	According to mapping in [24]	_	

#### 9.2.1.19A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message and if provided also the Dedicated Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Measurement Availability Indicator	М				_	
>Measurement Available					_	
>>Dedicated Measurement Value	М		9.2.1.19		1	
>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	_	
>Measurement not Available			NULL		_	

## 9.2.1.19Aa Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Delayed Activation	M			
> CFN				
>> Activation CFN	M		CFN 9.2.1.7	
> Separate Indication			NULL	

## 9.2.1.19Ab Delayed Activation Update

The Delayed Activation Update IE indicates a change of the activation of the DL power for a specific RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Delayed Activation Update	М			
> Activate				
>> CHOICE Activation Type	М			
>>> Synchronised				
>>> Activation CFN	М		CFN 9.2.1.7	
>>> Unsynchronised			NULL	
>> Initial DL TX Power	M		DL Power	
			9.2.1.21	
>> First RLS Indicator	0		9.2.2.16A	FDD Only
>> Propagation Delay	0		9.2.2.35	FDD Only
> Deactivate				
>> CHOICE Deactivation type	М			
>>> Synchronised				
>>>> Deactivation CFN	M		CFN 9.2.1.7	
>>> Unsynchronised			NULL	

#### 9.2.1.19B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	M		INTEGER(0604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid
Status/Health	М		ENUMERAT ED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections
Satellite DGPS Corrections Information		1 <maxnosat></maxnosat>		
>SatID	М		SAT ID 9.2.1.50A	Satellite ID
>IODE	M		BIT STRING(8)	This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eightbit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations.
>UDRE	M		ENUMERAT ED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE,)	User Differential Range Error. This field provides an estimate of the uncertainty (1- o) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite
>PRC	М		INTEGER( -20472047)	Scaling factor 0.32 meters
>Range Correction Rate	М		INTEGER(- 127 127)	Scaling factor 0.032 m/s

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be
	provided

### 9.2.1.19C Discard Timer

The *Discard Timer* IE defines the time to live for a MAC-hs SDU starting from the instant of its arrival into an HSDPA Priority Queue. The DRNS shall use this information to discard out-of-date MAC-hs SDUs from the HSDPA Priority Queues.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Discard Timer			ENUMERAT	Unit: ms
			ED (20, 40,	
			60, 80, 100,	
			120, 140,	
			160, 180,	
			200, 250,	
			300, 400,	
			500, 750,	
			1000, 1250,	
			1500, 1750,	
			2000, 2500,	
			3000, 3500,	
			4000, 4500,	
			5000, 7500,	
			)	

## 9.2.1.20 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Control Field			ENUMERAT ED(May, Must, Must not, )	

## 9.2.1.21 Diversity Indication

Void.

#### 9.2.1.21A DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell [FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols]. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[TDD - If referred to a DPCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power			INTEGER (- 350150)	Value = DL Power /10 Unit dB Range –35.0 +15.0 Step 0.1dB

## 9.2.1.22 Downlink SIR Target

Void

### 9.2.1.23 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH Constant Value			INTEGER (-	Unit dB
			1010)	Granularity 1 dB.

#### 9.2.1.24 D-RNTI

The D-RNTI identifies the UE Context in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
D-RNTI			INTEGER(02^20 -1)	

#### 9.2.1.25 D-RNTI Release Indication

The D-RNTI Release Indication indicates whether or not a DRNC shall release the D-RNTI allocated for a particular UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
D-RNTI Release Indication			ENUMERAT	
			ED(Release	
			D-RNTI, not	
			Release	
			D-RNTI)	

## 9.2.1.26 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
DRX Cycle Length			INTEGER	Refers to 'k' in the formula as
Coefficient			(39)	specified in ref. [15],
				Discontinuous Reception.

#### 9.2.1.26A DSCH ID

The DSCH ID is the identifier of an active downlink shared channel. It is unique for each active DSCH among the active DSCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH ID			INTEGER (0255)	

#### 9.2.1.26Aa DSCH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before new credits are received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH Initial Window Size			INTEGER (1255)	Number of MAC-c/sh SDUs: 255 = Unlimited number of
			, ,	MAC-c/sh SDUs.

#### 9.2.1.26B DSCH Flow Control Information

The DSCH Flow Control Information IE provides flow control information for each scheduling priority class for the DSCH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH Flow Control Information		116			_	
>DSCH Scheduling Priority	М		Scheduling Priority Indicator 9.2.1.51A		-	
>MAC-c/sh SDU Length		1 <maxnb MAC- c/shSDUL ength&gt;</maxnb 			-	
>>MAC-c/sh SDU Length	M		9.2.1.34		_	
>DSCH Initial Window Size	0		9.2.1.26Aa		YES	Ignore

Range bound	Explanation
maxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

#### 9.2.1.26Ba DSCH-RNTI

DSCH-RNTI is the UE identifier allocated by DRNS to be used over the radio interface by UEs having one or several DSCHs [TDD – and/or USCHs]. It is unique within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH-RNTI			INTEGER(0.	
			.65535)	

#### 9.2.1.26Bb Extended GSM Cell Individual Offset

Extended GSM Cell individual offset is an offset that will be applied by UE to the measurement results for GSM carrier RSSI according to [16]. It shall be used when the offset exceeds the range of values that can be indicated using the *Cell Individual Offset* IE (Subclause 9.2.1.7).

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Extended GSM Cell Individual Offset			INTEGER (- 5011	Unit in dB. Step size is 1 dB.
			1150)	

#### 9.2.1.26C FACH Flow Control Information

The FACH Flow Control Information IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FACH Flow Control Information		116			-	
>FACH Scheduling Priority	M		Scheduling Priority Indicator 9.2.1.51A		-	
>MAC-c/sh SDU Length		1 <maxnb MAC- c/shSDUL ength&gt;</maxnb 			_	
>>MAC-c/sh SDU Length	M		9.2.1.34		_	
>FACH Initial Window Size	М		9.2.1.27		-	

Range bound	Explanation
maxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

### 9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FACH Initial Window Size			INTEGER(0255)	Number of frames (MAC-c/sh SDUs.) 255 = Unlimited number of FACH data frames.

## 9.2.1.28 FACH Priority Indicator

Void

## 9.2.1.28A FN Reporting Indicator

Frame Number reporting indicator.

Indicates if the SFN or CFN shall be included together with the reported measurement value.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
FN reporting indicator			ENUMERAT	
-			ED(FN	
			reporting	
			required, FN	
			reporting not	
			required)	

## 9.2.1.29 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/DSCH for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Handling Priority			INTEGER	0=Lowest Priority,
			(015)	
				15=Highest Priority

#### 9.2.1.30 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame Offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Offset			INTEGER	Frames
			(0255)	

### 9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	М		9.2.1.30F	
Uncertainty Code	М		INTEGER( 0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$

### 9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Ellipse	М		9.2.1.68A	
Confidence	M		INTEGER(	
			0127)	

### 9.2.1.30C GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	

### 9.2.1.30D GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	
Uncertainty Ellipse	M		9.2.1.68A	
Uncertainty Altitude	M		INTEGER(	
			0127)	
Confidence	M	_	INTEGER(	
			0127)	

## 9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Inner radius	M		INTEGER( 02 <sup>16</sup> -1)	The relation between the value (N) and the radius (r) in meters it describes is 5N≤ r <5(N+1), except for N=2 <sup>16</sup> -1 for which the range is extended to include all grater values of (r).
Uncertainty radius	М		INTEGER( 0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 <sup>k</sup> -1)
Offset angle	М		INTEGER( 0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1)
Included angle	М		INTEGER( 0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N< a ≤2(N+1)
Confidence	M		INTEGER( 0127)	

# 9.2.1.30F Geographical Coordinates

This IE contains the description of geographical coordinates.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERAT ED(North, South)	
Degrees Of Latitude	M		INTEGER( 02 <sup>23</sup> -1)	The IE value (N) is derived by this formula: N≤2 <sup>23</sup> X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees Of Longitude	M		INTEGER( -2 <sup>23</sup> 2 <sup>23</sup> -1)	The IE value (N) is derived by this formula: N≤2 <sup>24</sup> X /360 < N+1 X being the longitude in degree (-180°+180°)

## 9.2.1.30Fa GERAN Cell Capability

The GERAN Cell Capability IE is used to transfer the capabilities of a certain GERAN cell via the Iur interface.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
GERAN Cell Capability	M		BIT STRING (16)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: A/Gb mode. The second bit: lu mode. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

#### 9.2.1.30Fb GERAN Classmark

The GERAN Classmark IE is used to transfer the capabilities of a certain GERAN Iu-mode capable cell via the Iur interface.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
GERAN Classmark	М		OCTET STRING	Contents defined in [38]

### 9.2.1.30G GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
WN <sub>a</sub>	М		BIT STRING(8)	
Satellite Almanac Information	M	1 <maxno OfSatAlma nac&gt;</maxno 		See Note 1.
>DataID	М		INTEGER (03)	
>SatID	М		SAT ID 9.2.1.50A	Satellite ID
>e	М		BIT STRING(16)	
>t <sub>oa</sub>	М		BIT STRING(8)	
>81	М		BIT STRING(16)	
>OMEGADOT	М		BIT STRING(16)	
>SV Health	М		BIT STRING(8)	
>A <sup>1/2</sup>	М		BIT STRING(24)	
>OMEGA <sub>0</sub>	М		BIT STRING(24)	
>M <sub>0</sub>	М		BIT STRING(24)	
>0	М		BIT STRING(24)	
>af <sub>0</sub>	М		BIT STRING(11)	
>af <sub>1</sub>	М		BIT STRING(11)	
SV Global Health	0		BIT STRING(364)	

Range Bound	Explanation		
maxNoOfSatAlmanac	Maximum number of satellite almanacs for which information		
	can be provided		

Note 1: This information element is a simplified representation of the ASN.1 description. Repetitions 1 through maxNoSat and repetitions maxNoSat+1 through maxNoOfSatAlmanac are represented by separate ASN.1 structures with different criticality.

## 9.2.1.30H GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [30].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
$\alpha_0$	M		BIT	
			STRING(8)	
α <sub>1</sub>	M		BIT	
			STRING(8)	
$\alpha_2$	M		BIT	
			STRING(8)	
$\alpha_3$	M		BIT	
			STRING(8)	
$\beta_0$	M		BIT	
			STRING(8)	
β <sub>1</sub>	M		BIT	
			STRING(8)	
$\beta_2$	M		BIT	
			STRING(8)	
β3	M		BIT	
			STRING(8)	

# 9.2.1.30I GPS Navigation Model and Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [30].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Navigation Message 1to3		1 <maxnosat></maxnosat>		
>Transmission TOW	М		INTEGER0 1048575)	Time of the Week when the message is broadcast.
>SatID	M		SAT ID 9.2.1.50A	Satellite ID of the satellite from which the information is obtained
>TLM Message	M		BIT STRING(14)	
>Tlm Revd (C)	М		BIT STRING(2)	
>HO-Word	M		BIT STRING(22)	
>WN	М		BIT STRING(10)	
>C/A or P on L2	М		BIT	
>User Range Accuracy	M		STRING(2) BIT	
Index			STRING(4)	
>SV Health	М		BIT STRING(6)	
>IODC	М		BIT STRING(10)	
>L2 P Data Flag	M		BIT STRING(1)	
>SF 1 Reserved	M		BIT STRING(87)	
>T <sub>GD</sub>	М		BIT STRING(8)	
>t <sub>oc</sub>	М		BIT STRING(16)	
>af <sub>2</sub>	М		BIT STRING(8)	
>af <sub>1</sub>	М		BIT STRING(16)	
>af <sub>0</sub>	М		BIT STRING(22)	
>C <sub>rs</sub>	M		BIT STRING(16)	
>∆n	M		BIT	
>M <sub>0</sub>	M		STRING(16) BIT	
>C <sub>uc</sub>	M		STRING(32) BIT STRING(16)	
>e	M		BIT	
>C <sub>us</sub>	M		STRING(32) BIT	
>(A) <sup>1/2</sup>	M		STRING(16) BIT	
>t <sub>oe</sub>	M		STRING(32) BIT	
>Fit Interval Flag	M		STRING(16) BIT	
>AODO	M		STRING(1) BIT	
>C <sub>ic</sub>	M		STRING(5) BIT	
>OMEGA <sub>0</sub>	M		STRING(16) BIT	
>C <sub>is</sub>	M		STRING(32) BIT	
>i <sub>0</sub>	M		STRING(16) BIT	
>C <sub>rc</sub>	M		STRING(32) BIT	
r <b>∪</b> ic	IVI		ווטו	

		STRING(16)
>ω	M	BIT
		STRING(32)
>OMEGAdot	M	BIT
		STRING(24)
>ldot	M	BIT
		STRING(14)
>Spare/zero fill	M	BIT
		STRING(20)

Range Bound	Explanation		
maxNoSat	Maximum number of satellites for which information can be		
	provided		

# 9.2.1.30J GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Bad Satellites Presence	M			
>Bad Satellites				
>>Satellite Information		1 <maxn oSat&gt;</maxn 		
>>>BadSatID	M		SAT ID 9.2.1.50A	Satellite ID
>No Bad Satellites			NULL	

Range Bound	Explanation		
MaxNoSat	Maximum number of satellites for which information can be		
	provided		

## 9.2.1.30K GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

	IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ſ	Geographical Coordinates	M		9.2.1.30F	
Ī	Altitude and direction	M		9.2.1.2B	

### 9.2.1.30L GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
A <sub>1</sub>	М		BIT STRING(24)	
A <sub>0</sub>	М		BIT STRING(32)	
tot	М		BIT STRING(8)	
$\Delta t_{LS}$	M		BIT STRING(8)	
WNt	M		BIT STRING(8)	
WN <sub>LSF</sub>	M		BIT STRING(8)	
DN	M		BIT STRING(8)	
$\Delta t_{LSF}$	M		BIT STRING(8)	

#### 9.2.1.30M Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Guaranteed UL Rate	0		INTEGER(1. .maxTFcount	"1": TFI 0, "2": TFI 1, "3": TFI 2, 
Guaranteed DL Rate	0		INTEGER(1. .maxTFcount	"1": TFI 0, "2": TFI 1, "3": TFI 2, 

## 9.2.1.30N HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HCS Prio			INTEGER (07)	0=Lowest Priority,
			(07)	7=Highest Priority

# 9.2.1.30NA HS-DSCH Information To Modify Unsynchronised

The *HS-DSCH Information To Modify Unsynchronised* IE is used for modification of HS-DSCH information in a UE Context with the Unsynchronised Radio Link Reconfiguration procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow Specific Information		0 <maxn oofMACd Flows&gt;</maxn 		
>HS-DSCH MAC-d Flow ID	M		9.2.1.300	
>Allocation/Retention Priority	0		9.2.1.1	
>Transport Bearer Request Indicator	M		9.2.1.61	
>Traffic Class	0		9.2.1.58A	
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.
Priority Queue Information		0 <maxn oofPrioQ ueues&gt;</maxn 		
>Priority Queue ID	M		9.2.1.45A	
>Scheduling Priority Indicator	0		9.2.1.51A	
>Discard Timer	0		9.2.1.19C	
>MAC-hs Guaranteed Bit Rate	0		9.2.1.34C	
CQI Power Offset	0		9.2.2.24b	For FDD only
ACK Power Offset	0		9.2.2.b	For FDD only
NACK Power Offset	0		9.2.2.26a	For FDD only
HS-SCCH Power Offset	0		9.2.2.19d	For FDD only
TDD ACK NACK Power Offset	0		9.2.3.71	For TDD only

# 9.2.1.30Na HS-DSCH Initial Capacity Allocation

The HS-DSCH Initial Capacity Allocation IE provides flow control information for each scheduling priority class for the HS-DSCH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Initial Capacity Allocation		1< maxnoofPr ioQueues		
>Scheduling Priority Indicator	М		9.2.1.51A	
>Maximum MAC-d PDU Size	М		MAC-d PDU Size 9.2.1.34A	
>HS-DSCH Initial Window Size	М		9.2.1.30Nb	

Range Bound	Explanation
maxnoofPrioQueues	Maximum number of Priority Queues

## 9.2.1.30Nb HS-DSCH Initial Window Size

Indicates the initial number of MAC-d PDUs that may be transmitted before new credits are received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH Initial Window Size			INTEGER (1255)	Number of MAC-d PDUs

## 9.2.1.300 HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow ID			INTEGER (07)	

# 9.2.1.30OA HS-DSCH MAC-d Flows Information

The *HS-DSCH MAC-d Flows Information* IE is used for the establishment of HS-DSCH MAC-d flows for a UE Context.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
inc/Group Name	riesence	Range	Reference	Gemantics Description
HS-DSCH MAC-d Flow		1 <maxno< td=""><td></td><td></td></maxno<>		
Specific Information		ofMACdFl		
		ows>		
>HS-DSCH MAC-d Flow	M		9.2.1.300	
ID				
>Allocation/Retention	M		9.2.1.1	
Priority				
>Traffic Class	M		9.2.1.58A	
>Binding ID	0		9.2.1.3	Shall be ignored if bearer
				establishment with ALCAP.
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer
				establishment with ALCAP.
Priority Queue Information		1 <maxno< td=""><td></td><td></td></maxno<>		
		ofPrioQue		
		ues>		
>Priority Queue ID	M		9.2.1.45A	
>Associated HS-DSCH	М		HS-DSCH MAC-d	The HS-DSCH MAC-d Flow ID
MAC-d Flow			Flow ID	shall be one of the flow IDs
			9.2.1.300	defined in the HS-DSCH MAC-d
				Flow Specific Information of this
				IE.
				Multiple Priority Queues can be associated with the same HS-
				DSCH MAC-d Flow ID.
>Scheduling Priority	M		9.2.1.51A	DSCH WAC-d Flow ID.
Indicator	IVI		9.2.1.31A	
>T1	М		9.2.1.54A	
>Discard Timer	0		9.2.1.19C	
>MAC-hs Window Size	M		9.2.1.34C	
>MAC-hs Guaranteed Bit	0		9.2.1.34Aa	
Rate				
>MAC-d PDU Size Index		1 <maxno< td=""><td></td><td></td></maxno<>		
		ofMACdP		
		DUindexes		
		>		
>>SID	M		9.2.1.52D	
>>MAC-d PDU Size	М		9.2.1.34A	
>RLC Mode	M		9.2.1.48D	

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows
maxnoofPrioQueues	Maximum number of Priority Queues
maxnoofMACdPDUindexes	Maximum number of different MAC-d PDU SIDs

# 9.2.1.30OB HS-DSCH MAC-d Flows To Delete

The HS-DSCH MAC-d Flows To Delete IE is used for the removal of HS-DSCH MAC-d flows from a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flows To Delete		1 <maxno ofMACdFl ows&gt;</maxno 		
>HS-DSCH MAC-d Flow ID	М		9.2.1.300	

Range Bound	Explanation
maxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows

# 9.2.1.30Oa HS-DSCH Physical Layer Category

The *HS-DSCH Physical Layer Category* IE defines a set of UE radio access capabilities related to HSDPA, as defined in [42].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH Physical Layer Category			INTEGER (164,)	

### 9.2.1.30P HS-DSCH-RNTI

The HS-DSCH-RNTI is needed for the UE-specific CRC in HS-SCCH and HS-DSCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH-RNTI			INTEGER	
			(065535)	

# 9.2.1.30Q HS-DSCH Information To Modify

The HS-DSCH Information To Modify IE is used for modification of HS-DSCH information in a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow Specific Information		0 <maxnoofmac dFlows&gt;</maxnoofmac 		
>HS-DSCH MAC-d Flow ID	M	di lows>	9.2.1.300	
>Allocation/Retention	0		9.2.1.1	
Priority >Transport Bearer Request	M		9.2.1.61	
Indicator				
>Traffic Class	0		9.2.1.58A	
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.
Priority Queue Information		0 <maxnoofprioq ueues&gt;</maxnoofprioq 		
>CHOICE Priority Queue	М			
>>Add Priority Queue				
>>>Priority Queue ID	M		9.2.1.45A	
>>>Associated HS-DSCH MAC-d Flow	М		HS-DSCH MAC-d Flow ID 9.2.1.30O	Shall only refer to a HS- DSCH MAC-d flow already existing in the old configuration. Multiple Priority Queues can be associated with the same HS-DSCH MAC-d Flow ID.
>>>Scheduling Priority Indicator	М		9.2.1.51A	
>>>T1	М		9.2.1.54A	
>>>Discard Timer	0		9.2.1.19C	
>>>MAC-hs Window Size	М		9.2.1.34C	
>>>MAC-hs Guaranteed Bit Rate	0		9.2.1.34Aa	
>>>MAC-d PDU Size		1 <maxnoofmac< th=""><th></th><th></th></maxnoofmac<>		
Index >>>>SID	M	dPDUindexes>	9.2.1.52D	
>>>SID >>>>MAC-d PDU Size	M		9.2.1.32D 9.2.1.34A	
>>>RLC Mode	M		9.2.1.34A 9.2.1.48D	
>>Modify Priority Queue	IVI		9.2.1.40D	
>>>Priority Queue ID	M		9.2.1.45A	Shall only refer to a Priority Queue already existing in the old configuration.
>>>Scheduling Priority Indicator	0		9.2.1.51A	· ·
>>>T1	0		9.2.1.54A	
>>>Discard Timer	0		9.2.1.19C	
>>>MAC-hs Window Size	0		9.2.1.34C	
>>>MAC-hs Guaranteed Bit Rate	0		9.2.1.34Aa	
>>>MAC-d PDU Size Index		0 <maxnoofmac dPDUindexes&gt;</maxnoofmac 		
>>>SID	М	di Dollidoxesz	9.2.1.52D	
>>>MAC-d PDU Size	M		9.2.1.34A	
>>Delete Priority Queue				
>>>Priority Queue ID	М		9.2.1.45A	Shall only refer to a Priority Queue already existing in the old configuration.
MAC-hs Reordering Buffer Size for RLC-UM	0		9.2.1.34Ab	<b>,</b>
CQI Feedback Cycle k	0		9.2.2.24a	For FDD only
CQI Repetition Factor	0		9.2.2.24c	For FDD only
ACK-NACK Repetition Factor	0		9.2.2.a	For FDD only
CQI Power Offset	0		9.2.2.24b	For FDD only
ACK Power Offset	0		9.2.2.b	For FDD only
NACK Power Offset	0		9.2.2.26a	For FDD only
HS-SCCH Power Offset	0		9.2.2.19d	For FDD only

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change Grant	0		9.2.1.30S	
TDD ACK NACK Power Offset	0		9.2.3.71	For TDD only

Range bound	Explanation
maxnoofMACdFlows	Maximum number of MAC-d flows.
maxnoofPrioQueues	Maximum number of Priority Queues.
maxnoofMACdPDUindexes	Maximum number of MAC-d PDU Size Indexes
	(SIDs).

### 9.2.1.30R HS-SCCH Code Change Indicator

The HS-SCCH Code Change Indicator indicates whether the HS-SCCH Code change is needed or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-SCCH Code Change Indicator			ENUMERAT ED (HS- SCCH Code Change	
			needed)	

# 9.2.1.30S HS-SCCH Code Change Grant

The HS-SCCH Code Change Grant IE indicates that modification of HS-SCCH Codes is granted.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-SCCH Code Change			ENUMERAT	
Grant			ED(Change	
			Granted)	

### 9.2.1.31 IMSI

The IMSI is the permanent UE user Identity, see ref. [1].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
IMSI			OCTET	-Decimal digits coded in
			STRING	BCD
			(SIZE(38))	-'1111' used as filler
				-bit 4 to 1 of octet n is
				encoding digit 2n-1
				-bit 8 to 5 of octet n is
				encoding digit 2n

# 9.2.1.31A Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Exchange ID	М		INTEGER(0 2^20-1)	

# 9.2.1.31B Information Exchange Object Type

Void.

# 9.2.1.31C Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Report	M			
Characteristics Type				
>On Demand			NULL	
>Periodic				
>>CHOICE Information	M			The frequency with which the
Report Periodicity Scale				Node B shall send information
				reports.
>>>minute				
>>>Report	M		INTEGER	
Periodicity Value			(160,)	
>>>hour				
>>>Report	M		INTEGER	
Periodicity Value			(124,)	
>On Modification				
>>Information Threshold	0	_	9.2.1.31D	

#### 9.2.1.31D Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Information Type Item	М				-	
>DGPS Corrections					-	
>>PRC Deviation	М		ENUMERATED( 1, 2, 5, 10,)	PRC deviation in meters from the previously reported value, which shall trigger a report	-	

# 9.2.1.31E Information Type

The Information Type indicates which kind of information the RNS shall provide.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Type Item	M		ENUMERAT ED (UTRAN Access Point Position with Altitude, UTRAN Access Point Position, IPDL Parameters, GPS Information, DGPS Corrections, GPS RX Pos, SFN- SFN Measureme nt Reference Point Position,, Cell Capacity Class)	For information exchange on the lur-g interface, only the Cell Capacity Class is used.
GPS Information	C-GPS	1 <maxnoofgpstype s&gt;</maxnoofgpstype 	,	
>GPS Information Item			ENUMERAT ED (GPS Navigation Model and Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real- Time Integrity,)	

Condition	Explanation
GPS	This IE shall be present if the Information Type Item IE
	indicates "GPS Information".

Range Bound	Explanation
maxnoofGPSTypes	Maximum number of GPS Information Types supported in one
	Information Exchange.

### 9.2.1.31F IPDL Parameters

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE IPDL Parameters					-	
>IPDL FDD Parameters					-	
>>IPDL FDD parameters	М		9.2.2.21B		-	
>IPDL TDD Parameters				Applicable to 3.84Mcps TDD only	-	
>>IPDL TDD parameters	М		9.2.3.4B		-	
>Additional IPDL Parameters					-	
>>IPDL TDD Parameters LCR				Applicable to 1.28Mcps TDD only	-	
>>>IPDL TDD parameters LCR	М		9.2.3.4Bb		YES	reject

### 9.2.1.32 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the DRNC, as defined in ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
L3 Information			BIT STRING	The content is defined in ref. [16]

#### 9.2.1.33 Limited Power Increase

Void.

### 9.2.1.33A Load Value

The *Load Value* IE contains the total load on the measured object relative to the maximum planned load for both the uplink and downlink. It is defined as the load percentage of the Cell Capacity Class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Load Value	M		INTEGER(0100)	Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale.
Downlink Load Value	M		INTEGER(0100)	Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale.

# 9.2.1.34 MAC-c/sh SDU Length

Indicates the MAC-c/sh SDU Length. Which is used for FACH, DSCH and USCH. There may be multiple MAC-c/sh SDU Lengths per priority class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-c/sh SDU Length			INTEGER(15000)	Size of the MAC-c/sh SDU in number of bits.

#### 9.2.1.34A MAC-d PDU Size

The MAC-d PDU Size IE provides the size in bits of the MAC-d PDU.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-d PDU Size			INTEGER	
			(15000,)	

#### 9.2.1.34Aa MAC-hs Guaranteed Bit Rate

The *MAC-hs Guaranteed Bit Rate* IE indicates the guaranteed number of bits per second that Node B should deliver over the air interface under normal operating conditions (provided there is data to deliver).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-hs Guaranteed Bit			INTEGER	Unit: bit/s
Rate			(02^24-1,	
			)	

### 9.2.1.34Ab MAC-hs Reordering Buffer Size for RLC-UM

The *MAC-hs Reordering Buffer Size for RLC-UM* IE indicates the portion of the buffer in the UE that can be used for RLC-UM traffic (i.e. for Priority Queues whose *RLC Mode* IE is set to "RLC-UM").

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
MAC-hs Reordering Buffer Size for RLC-UM			INTEGER (0300,)	Unit: kBytes And N kBytes = N*1024 Bytes. The DR NS shall use this value to avoid the overflow of the UE buffer.

#### 9.2.1.34B MAC-hs Reset Indicator

The MAC-hs Reset Indicator IE indicates that a reset of the MAC-hs is not required.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
MAC-hs Reset Indicator			ENUMERATED	
			(MAC-hs	
			Not Reset)	

#### 9.2.1.34C MAC-hs Window Size

The MAC-hs Window Size IE is used for MAC-hs PDU retransmission as defined in [41].

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
MAC-hs Window Size			ENUMERAT	
			ED (4, 6, 8,	
			12, 16, 24,	
			32,)	

#### 9.2.1.35 Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Allowed UL Tx			INTEGER(-	dBm
Power			50+33)	

### 9.2.1.35A Measurement Availability Indicator

Void

### 9.2.1.35B Measurement Change Time

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Change Time	M		INTEGER	Unit: ms
			(16000,)	Range: 1060000 ms
				Step: 10 ms

#### 9.2.1.36 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Measurement Filter			ENUMERAT	
Coefficient			ED(0, 1, 2,	
			3, 4, 5, 6, 7,	
			8, 9, 11, 13,	
			15, 17,	
			19,)	

## 9.2.1.36A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Measurement Hysteresis Time			INTEGER	Unit: ms
			(16000,)	Range: 1060000 ms
			·	Step: 10 ms

#### 9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context.

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

### 9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Measurement Increase/Decrease	М				-	
Threshold						
>SIR					-	
>>SIR	M		INTEGER(062)	0: 0 dB 1: 0.5 dB 2: 1 dB	-	
				62: 31dB		
>SIR Error				FDD Only	-	
>>SIR Error	M		INTEGER(0124 )	0: 0 dB 1: 0.5 dB 2: 1 dB	-	
>Transmitted Code				124: 62 dB		
Power					-	
>>Transmitted Code Power	М		INTEGER(0112 ,)	0: 0 dB 1: 0.5 dB 2: 1 dB	-	
				112: 56 dB		
>RSCP				TDD Only	-	
>>RSCP	M		INTEGER(0126 )	0: 0 dB 1: 0.5 dB 2: 1 dB	-	
				126: 63 dB		
>Round Trip Time			WITE 0 ED (0.007	FDD Only	-	
>>Round Trip Time	М		INTEGER(0327 66)	0: 0 chips 1: 0.0625 chips 2: 0.1250 chips  32766: 2047.875	-	
>Additional				chips	_	
Measurement Thresholds						
>>Load >>>Load	M		INTEGER(0100	Units are the same as	-	
>>>LUdu	IVI		)	for the Uplink Load Value IE and Downlink Load Value IE.	-	
>>Transmitted					-	
Carrier Power >>>Transmitted	N/I	-	INITECED/O 400	According to manning	YES	roicat
>>> ransmitted Carrier Power	M		INTEGER(0100 )	According to mapping in [23] and [24].	150	reject
>>Received Total Wide Band Power					-	
>>>Received Total Wide Band Power	М		INTEGER(0620 )	0: 0dB 1: 0.1dB 2: 0.2dB	YES	reject
				620: 62dB		
>>UL Timeslot ISCP			NITTO TO COMPANY	TDD Only	-	
>>>UL Timeslot ISCP			INTEGER(0126 )	0: 0dB 1: 0.5dB 2: 1dB	YES	reject
				126: 63dB		
>>RT Load					-	

>>>RT Load	М	INTEGER(0100 )	Units are the same as for the <i>Uplink RT</i> <i>Load Value</i> IE and <i>Downlink RT Load</i> <i>Value</i> IE.	YES	reject
>>NRT Load Information				ı	
>>>NRT Load Information	M	INTEGER(03)		YES	reject

# 9.2.1.39 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Measurement				•	-	
Threshold						
>SIR >>SIR	M		INTEGER(063)	According to mapping	-	
>SIR Error				in ref. [23] and [24]. FDD Only	_	
>>SIR Error	М		INTEGER(0125	According to mapping in [23]	-	
>Transmitted Carrier Power					-	
>>Transmitted Code Power	M		INTEGER(0127	According to mapping in ref. [23] and [24].	-	
>RSCP				TDD Only	-	
>>RSCP	М		INTEGER(0127 )	According to mapping in ref. [24]	-	
>Rx Timing Deviation			NITEOED/0 040	Applicable to 3.84Mcps TDD Only	-	
>>Rx Timing Deviation	М		INTEGER(0819 1)	According to mapping in [24]	-	
>Round Trip Time >>Round Trip	M		INTEGER(0327	FDD Only According to mapping	-	
Time	IVI		67)	in [23]	-	
> T <sub>UTRAN-GPS</sub> Measurement Threshold Information					-	
>>T <sub>UTRAN-GPS</sub> Measurement Threshold Information	М		9.2.1.59C		YES	reject
> SFN-SFN Measurement Threshold Information					-	
>>SFN-SFN Measurement Threshold Information	M		9.2.1.52B		YES	reject
>Load			INITEOED/O 400	0	-	
>>Load	M		INTEGER(0100 )	0 is the minimum indicated load, and 100 is the maximum indicated load.	YES	reject
>Transmitted Carrier Power					-	
>>Transmitted Carrier Power	М		INTEGER(0100	According to mapping in [23] and [24].	YES	reject
>Received Total Wide Band Power			1	in [20] and [2 i].	-	
>>Received Total Wide Band Power	М		INTEGER(0621	According to mapping in [23] and [24].	YES	reject
>UL Timeslot ISCP				TDD Only	-	
>>UL Timeslot ISCP	М		INTEGER(0127	According to mapping in [24]	YES	reject
>RT Load >>RT Load	M		INTEGER(0100		YES	reject
>NRT Load Information			)		-	
>>NRT Load Information	М		INTEGER(03)		YES	reject
>Rx Timing				Applicable to		

Deviation LCR			1.28Mcps TDD Only			i
>>Rx Timing	M	INTEGER(0511	According to mapping	YES	reject	1
Deviation LCR		)	in [24]		-	ì
>HS-SICH			Applicable to TDD	_		1
reception quality			Only			1
>>HS-SICH	M	INTEGER (020)	According to mapping	YES	reject	ì
reception			in [24]			1
quality						ı

# 9.2.1.39A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message structure		1 <maxnoo flevels&gt;</maxnoo 		The first repetition of the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occurred error of the message.	-	
>IE ID	М		INTEGER( 065535)	The IE ID of this level"s IE containing the not understood or missing IE.	-	
>Repetition Number	0		INTEGER( 1256)	The Repetition Number IE gives, if applicable, the number of occurrences of this level"s reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierarchical message structure of IEs with assigned criticality above them.	-	

Range bound	Explanation
maxnooflevels	Maximum no. of message levels to report. The value for
	maxnooflevels is 256.

## 9.2.1.40 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Procedure ID		1		
>Procedure Code	M		INTEGER (0255)	"0" = Common Transport Channel Resources Initialisation "1" = Common Transport Channel Resources Release "2" = Compressed Mode Command "3" = Downlink Power Control "4" = Downlink Power Timeslot Control "5" = Downlink Signalling Transfer "6" = Error Indication "7" = Dedicated Measurement Failure "8" = Dedicated Measurement Initiation "9" = Dedicated Measurement Reporting
				"10" = Dedicated Measurement Termination "11" = Paging "12" = Physical Channel Reconfiguration "14" = Radio Link Addition "15" = Radio Link Peletion "16" = Radio Link Preemption "18" = Radio Link Restoration "19" = Radio Link Setup "20" = Relocation Commit "21" = Synchronised Radio Link Reconfiguration Cancellation "22" = Synchronised Radio Link Reconfiguration Commit "23" = Synchronised Radio Link Reconfiguration Preparation "24" = UnSynchronised Radio Link Reconfiguration Preparation "25" = Uplink Signalling Transfer "26" = Common Measurement Failure "27" = Common Measurement Initiation "28" = Common Measurement Reporting "29" = Common Measurement Termination "30" = Information Exchange Failure "31" = Information Exchange Initiation
				"32" = Information Reporting "33" = Information Exchange Termination "34" = Radio Link Congestion "35" = Reset "36" = Radio Link Activation '38' = Radio Link Parameter Update
>Ddmode	М		ENUMERATED(FDD,	Common = common to FDD and TDD.
Type of Message	M		TDD, Common,)  ENUMERATED(Initiati ng Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

# 9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Multiple URAs Indicator			ENUMERAT	
			ED(Multiple	
			URA s exist,	
			Single URA	
			Exists)	

## 9.2.1.41A Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring UMTS Cell Information		1 <maxnoof neighbourin gRNCs&gt;</maxnoof 			EACH	ignore
>RNC-ID	M		9.2.1.50		_	
>CN PS Domain Identifier	0		9.2.1.12		-	
>CN CS Domain Identifier	0		9.2.1.11		_	
>Neighbouring FDD Cell Information	0		9.2.1.41B		_	
>Neighbouring TDD Cell Information	0		9.2.1.41D		_	
>Neighbouring TDD Cell Information LCR	0		9.2.1.72		YES	ignore

Range bound	Explanation
maxnoofneighbouringRNCs	Maximum number of neighbouring RNCs.

## 9.2.1.41B Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring FDD Cell Information		1 <max noofFDD neighbou rs&gt;</max 			-	
>C-ID	M		9.2.1.6		_	
>UL UARFCN	M		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	-	
>DL UARFCN	М		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	-	
>Frame Offset	0		9.2.1.30		-	
>Primary Scrambling Code	M		9.2.1.45		-	
>Primary CPICH Power	0		9.2.1.44		-	
>Cell Individual Offset	0		9.2.1.7		-	
>Tx Diversity Indicator	M		9.2.2.50			
>STTD Support Indicator	0		9.2.2.45		-	
>Closed Loop Mode1 Support Indicator	0		9.2.2.2		-	
>Closed Loop Mode2 Support Indicator	0		9.2.2.3		_	
>Restriction State Indicator	0		9.2.1.48C		YES	ignore
>DPC Mode Change Support Indicator	0		9.2.2.56		YES	ignore
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.2C		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container FDD	0		9.2.2.D		YES	ignore
>SNA Information	0		9.2.1.52Ca		YES	ignore

Range bound	Explanation
maxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.

# 9.2.1.41C Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for all GSM Cells that are a neighbouring cell to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring GSM Cell Information		1 <max noofGS Mneighb ours&gt;</max 			GLOBAL	ignore
>CGI		1		Cell Global Identity as defined in ref. [1].	_	
>>LAI >>>PLMN Identity	M	1	OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).		
>>>LAC	М		OCTET STRING (2)	0000 and FFFE not allowed	_	
>>Cl	M		OCTET STRING (2)		_	
>Cell Individual Offset	0		9.2.1.7	The Cell Individual Offset to be used for UEs using DCHs. If the Extended GSM Cell Individual Offset IE is present, the Cell Individual Offset IE shall be set to a) -10dB if the Extended GSM Cell Individual Offset IE is < -10dB and b) 10dB if the Extended GSM Cell Individual Offset IE is > 10dB.	_	
>BSIC		1		Base Station Identity Code as defined in ref. [1].	1	
>>NCC	М		BIT STRING(3)	Network Colour Code.	_	
>>BCC	М		BIT STRING(3)	Base Station Colour Code.	_	
>Band Indicator	М		ENUMERAT ED(DCS 1800 band, PCS 1900 band,)	Indicates whether or not the BCCH ARFCN belongs to the 1800 band or 1900 band of GSM frequencies.	-	
>BCCH ARFCN	М		INTEGER(01023)	BCCH Frequency as defined in ref. [29].		
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.2C		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore

> SNA Information	0	9.2.1.52Ca		YES	ignore
>GERAN Cell Capability	0	9.2.1.30Fa		YES	ignore
>GERAN Classmark	0	9.2.1.30Fb		YES	ignore
>Extended GSM Cell Individual Offset	0	9.2.1.26Bb	The Extended GSM Cell Individual Offset to be used for UEs using DCHs, for values that exceed the range of the Cell Individual Offset IE.	YES	ignore

Range bound	Explanation
maxnoofGSMneighbours	Maximum number of neighbouring GSM cells for one cell.

## 9.2.1.41D Neighbouring TDD Cell Information

The *Neighbouring TDD Cell Information* IE provides information for 3.84Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring TDD Cell Information		1 <maxnoo fTDDneighb ours&gt;</maxnoo 			_	
>C-ID	M		9.2.1.6		_	
>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	_	
>Frame Offset	0		9.2.1.30		_	
>Cell Parameter ID	M		9.2.1.8		_	
>Sync Case	M		9.2.1.54		_	
>Time Slot For SCH	C-Case1		Time Slot 9.2.1.56		_	
>SCH Time Slot	C-Case2		9.2.1.51		_	
>SCTD Indicator	M		9.2.1.78		_	
>Cell Individual Offset	0		9.2.1.7		_	
>DPCH Constant Value	0		9.2.1.23		_	
>PCCPCH Power	0		9.2.1.43		_	
>Restriction State Indicator	0		9.2.1.48C		YES	ignore
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.2C		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container TDD	0		9.2.3.1a		YES	ignore
> SNA Information	0		9.2.1.52Ca		YES	ignore

Condition	Explanation
Case1	The IE shall be present if the Sync Case IE is set to 'Case1'.
Case2	The IE shall be present if the Sync Case IE is set to 'Case2'.

Range bound	Explanation
maxnoofTDDneighbours	Maximum number of neighbouring 3.84Mcps TDD cell for one cell.

## 9.2.1.41Dd Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
UTRAN Cell Identifier	М		9.2.1.71	
UARFCN	М		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	М		9.2.1.8	
Time Slot LCR	0		9.2.3.12a	
Midamble shift LCR	0		9.2.3.4C	

# 9.2.1.41E Paging Cause

Cause for a CN originated page.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging Cause			ENUMERAT ED( Terminating Conversatio nal Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, Terminating Low Priority Signalling, , Terminating High Priority Signalling, Terminating - cause unknown	See in [16]

# 9.2.1.41F Paging Record Type

IE/Group Name	Presence	Range	IE Type and	Semantics Description
_		_	Reference	-
Paging Record Type			ENUMERAT	See ref. [16]
			ED(IMSI	
			(GSM-MAP),	
			TMSI (GSM-	
			MAP), P-	
			TMSI (GSM-	
			MAP), IMSI	
			(DS-41),	
			TMSI (DS-	
			41),)	

# 9.2.1.41Fa Partial Reporting Indicator

This IE indicates if DRNS may report partially successful measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Partial Reporting Indicator			ENUMERAT	
			ED(partial	
			reporting	

		allowed)	

## 9.2.1.41G Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of Measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	М		9.2.1.71	
UARFCN	М		9.2.1.66	Corresponds to Nd [6]
Primary Scrambling Code	M		9.2.1.45	

## 9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.1.8	
Time slot	0		9.2.1.56	
Midamble Shift And Burst Type	0		9.2.3.4	

#### 9.2.1.41I NRT Load Information Value

The NRT Load Information IE indicates the load situation on the cell for the Non Real-Time traffic. Non Real Time traffic corresponds to the Interactive and Background traffic classes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink NRT Load Information Value	M		INTEGER(03)	Mapping of the status: 0: low: The Uplink NRT load is low. 1: medium: The Uplink NRT load is medium. 2: high: Uplink NRT load is high. Probability to admit a new user is low. 3: overloaded: Uplink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow.
Downlink NRT Load Information Value	M		INTEGER(03)	Mapping of the status: 0: low: The Downlink NRT load is low. 1: medium: The Downlink NRT load is medium. 2: high: Downlink NRT load is high. Probability to admit a new user is low. 3: overloaded: Downlink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow.

## 9.2.1.42 Payload CRC Present Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Payload CRC Presence			ENUMERAT	
Indicator			ED(CRC	
			Included,	
			CRC not	
			included)	

### 9.2.1.43 PCCPCH Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the PCCPCH Power is the linear sum of the power that is used for transmitting the PCCPCH on all branches.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
PCCPCH Power			NTEGER (-	Unit dBm Range –15.0 to 40.0
			150400,)	dBm,
				Step size 0.1 dB.
				-15.0 shall indicate P< -15dBm
				+40.0 shall indicate P>
				40dBm.

## 9.2.1.44 Primary CPICH Power

Primary CPICH power is the power that is used for transmitting the Primary CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH Power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Power			INTEGER (- 100500)	Value = Primary CPICH Power/10 Unit dBm Range –10.0+50.0 Step 0.1 dB

### 9.2.1.45 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary Scrambling Code			INTEGER(0 511)	

### 9.2.1.45A Priority Queue ID

The *Priority Queue ID* IE provides the identity of the Priority Queue. The Priority Queue ID is unique across all MAC-d flows that are currently allocated for one UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Queue ID			INTEGER	
			(07)	

## 9.2.1.45B Process Memory Size

The *Process Memory Size* IE is the size of an HARQ process in the DRNS expressed in bits. It provides the maximum number of soft channel bits in the virtual IR buffer [9] or [46].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Process Memory Size			ENUMERATED (	
_			800, 1600, 2400, 3200,	
			4000, 4800, 5600, 6400,	
			7200, 8000, 8800, 9600,	
			10400, 11200, 12000,	
			12800, 13600, 14400,	
			15200, 16000, 17600,	
			19200, 20800, 22400,	
			24000, 25600, 27200,	
			28800, 30400, 32000,	
			36000, 40000, 44000,	
			48000, 52000, 56000,	
			60000, 64000, 68000,	
			72000, 76000, 80000,	
			88000, 96000, 104000,	
			112000, 120000, 128000,	
			136000, 144000, 152000,	
			160000, 176000, 192000,	
			208000, 224000, 240000,	
			256000, 272000, 288000,	
			304000,)	

### 9.2.1.46 Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Puncture Limit			INTEGER (015)	0: 40% 1: 44 %  14: 96% 15: 100% (no puncturing)

#### 9.2.1.46A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
QE-Selector			ENUMERAT	
			ED(selected,	
			non-	
			selected)	

### 9.2.1.47 RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [2].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RANAP Relocation Information			BIT STRING	The content is defined in ref. [2].

# 9.2.1.48 Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Report Characteristics	М				_	
>On Demand			NULL		_	
>Periodic			11022		_	
>>Report Periodicity	M		9.2.1.48a	The periodicity with which the DRNS shall send measuremen t reports.	-	
>Event A >>Measurement Threshold	M		9.2.1.39	The threshold for which the DRNS shall trigger a measuremen t report.	-	
>>Measurement Hysteresis Time	0		9.2.1.36A		_	
>Event B >>Measurement Threshold	M		9.2.1.39	The threshold for which the DRNS shall trigger a measuremen t report.	-	
>>Measurement Hysteresis Time >Event C	0		9.2.1.36A		-	
>>Measurement Increase/Decrease Threshold	M		9.2.1.38		-	
>>Measurement Change Time	М		9.2.1.35B	The time within which the measuremen t entity shall rise, in order to trigger a measuremen t report.	1	
>Event D					_	
>>Measurement Increase/Decrease Threshold	М		9.2.1.38		-	
>>Measurement Change Time	M		9.2.1.35B	The time within which the measuremen t entity shall fall, in order to trigger a measuremen t report.	.1	
>Event E				·	_	
>>Measurement Threshold 1	М		Measureme nt Threshold 9.2.1.39		-	
>>Measurement Threshold 2	0		Measureme nt Threshold		-	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.1.39			
>>Measurement Hysteresis Time	0		9.2.1.36A	The hysteresis time in ms	-	
>>Report Periodicity	0		9.2.1.48a	The periodicity with which the DRNS shall send measuremen t reports.	-	
>Event F					_	
>>Measurement Threshold 1	М		Measureme nt Threshold 9.2.1.39		-	
>>Measurement Threshold 2	0		Measureme nt Threshold 9.2.1.39		-	
>>Measurement Hysteresis Time	0		9.2.1.36A	The hysteresis time in ms	_	
>>Report Periodicity	0		9.2.1.48a	The periodicity with which the DRNS shall send measuremen t reports.	-	
>Additional Report Characteristics					_	
>>On Modification					-	
>>> On Modification		1			YES	reject
>>>>Measure ment Threshold	M		9.2.1.39			

## 9.2.1.48a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Report Periodicity Scale	M			
>millisecond				
>>Report Periodicity Value	М		INTEGER (16000,)	Unit: ms Range: 1060000 ms Step: 10 ms
>minute				
>>Report Periodicity Value	М		INTEGER (160,)	Unit: min Range: 160 min Step: 1 min

## 9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerned the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UTRAN Access Point Position	0		9.2.1.75		-	
with Altitude						
IPDL Parameters	0		9.2.1.31F		-	
DGPS Corrections	0		9.2.1.19B		-	
GPS Navigation Model and	0		9.2.1.301		-	
Time Recovery						
GPS Ionospheric Model	0		9.2.1.30H		-	
GPS UTC Model	0		9.2.1.30L		-	
GPS Almanac	0		9.2.1.30G		-	
GPS Real-Time Integrity	0		9.2.1.30J		-	
GPS RX Pos	0		9.2.1.30K		-	
SFN-SFN Measurement Reference Point Position	0		9.2.1.74		-	
Cell Capacity Class Value	0		9.2.1.5C		YES	ignore

# 9.2.1.48B Requested Data Value Information

The *Requested Data Value Information* IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Information Availability Indicator	M				-	
>Information Available					_	
>>Requested Data Value	М		9.2.1.48A		1	
>Information not Available			NULL		-	

#### 9.2.1.48C Restriction State Indicator

The Restriction state indicator is the identifier indicates whether the cell is "Cell Reserved for Operator Use" or not. It is provided by DRNS and reported to SRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Restriction state indicator			ENUMERAT	
			ED(Cell Not	
			Reserved for	
			Operator	
			Use, Cell	
			Reserved for	
			Operator	
			Use,)	

#### 9.2.1.48D RLC Mode

The RLC Mode IE indicates the RLC Mode used for a Priority Queue.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
RLC Mode			ENUMERAT	
			ED (	
			RLC-AM,	
			RLC-UM,)	

#### 9.2.1.49 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL ID			INTEGER (031)	

## 9.2.1.49A RL Specific DCH Information

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
RL Specific DCH Information		1 <maxno ofDCHs&gt;</maxno 			_	
>DCH ID	M		9.2.1.16		_	
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	-	
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	-	

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

### 9.2.1.50 RNC-ID

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-ID			INTEGER(0.	
			.4095)	

#### 9.2.1.50A SAT ID

The SAT ID indicates the identity of the satellite.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SAT ID			INTEGER(0.	
			.63)	

#### 9.2.1.50B RT Load Value

The *RT Load Value* IE indicates in percents the ratio of the load generated by Real Time traffic, relative to the measured Load Value. Real Time traffic corresponds to the Conversational and Streaming traffic classes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink RT Load Value	M		INTEGER(0100)	
Downlink RT Load Value	M		INTEGER(0100)	

#### 9.2.1.51 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that is assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCH Time Slot			INTEGER(06)	

## 9.2.1.51A Scheduling Priority Indicator

Indicates the relative priority of the FACH, DSCH, USCH or HS-DSCH data frame. Used by the DRNC when scheduling FACH, DSCH, USCH or HS-DSCH traffic.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scheduling Priority Indicator			INTEGER(015)	Relative priority of the FACH, DSCH, USCH or HS-DSCH data frame: 0=Lowest Priority 15=Highest Priority

## 9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	М		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
SAC	М		OCTET STRING (2)	

#### 9.2.1.52A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN			INTEGER(0.	
			.4095)	

### 9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN-SFN Change Limit	0		INTEGER(1256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted SFN-SFN Deviation Limit	0		INTEGER(1256)	Deviation the Predicted SFN- SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

### 9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		1 <maxnoofmeasn Cell&gt;</maxnoofmeasn 		
>UTRAN Cell Identifier	М		9.2.1.71	
>SFN-SFN Value	М		9.2.1.77	
>SFN-SFN Quality	0		INTEGER(0255)	Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu$ = $E[x]$ is the expectation value of x.
>SFN-SFN Drift Rate	М		INTEGER(- 100100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	0		INTEGER(0100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Measurement Time Stamp	М		9.2.1.76	,
Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information		0 <maxnoofmeasn Cell-1&gt;</maxnoofmeasn 		
>UTRAN Cell Identifier	М		9.2.1.71	

Range bound	Explanation		
maxnoofMeasNCell	Maximum number of neighbouring cells on which		
	measurements can be performed.		

# 9.2.1.52Ca Shared Network Area (SNA) Information

This information element contains a list of Shared Network Areas, identified by the Shared Network Area Code (SNAC, see [1]) which a certain cell belongs to. For a broader description of the SNA access control see [40].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n - The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
List of SNAs		0 <maxnoofsnas< td=""><td></td><td></td></maxnoofsnas<>		
> SNAC	М		INTEGER (0 65535)	

Range bound	Explanation		
maxnoofSNAs	Maximum number of SNAs one cell can be part of.		

#### 9.2.1.52D SID

The SID IE provides the identity of the Size Index.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SID			INTEGER (07)	

### 9.2.1.53 S-RNTI

The S-RNTI identifies the UE in the SRNC.

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

## 9.2.1.53a S-RNTI Group

The S-RNTI Group identifies a group of UEs in the SRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
S-RNTI	M		9.2.1.53	
S-RNTI bit mask index	M		Enumerated(	
			b1,	
			b2,b19,)	

The S-RNTI group is identified by all S-RNTI values whose bits starting from the most significant bit down to, and including, the bit indicated by S-RNTI bit mask index, are equal to the corresponding bits of the S-RNTI in this IE.

The bits of the S-RNTI in this IE that are less significant than the bit position indicated by the S-RNTI bit mask index shall be ignored.

### 9.2.1.54 Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case as follows:

- Case 1) SCH and PCCPCH allocated in a single TS#k
- Case 2) SCH allocated in two TS: TS#k and TS#k+8 PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from DRNC to SRNC used for 1.28Mcps TDD, the DRNC shall indicate Sync Case 1 and the SRNC shall ignore it.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Case			INTEGER	
			(12,)	

#### 9.2.1.54A T1

The T1 IE is used as described in ref [41] subclause 11.6.2.3.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
T1			ENUMERAT	Unit: ms
			ED (10, 20,	Node B may use this value to
			30, 40, 50,	stop the re-transmission of
			60, 70, 80,	the corresponding MAC-hs
			90, 100, 120,	PDU.
			140, 160,	
			200, 300,	
			400,)	

#### 9.2.1.55 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [12].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Presence			ENUMERATE	
			D(Present,	
			not present)	

## 9.2.1.56 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot			INTEGER	
			(014)	

#### 9.2.1.56A TNL QoS

This IE indicates the TNL QoS characteristics of the transport bearer for the uplink data traffic.

When the DS field IE is used, the value of this IE is configurable by the operator.

When the *Generic Traffic Category* IE is used, generic traffic categories are implementation-specific (e.g. they may be determined by the sender from the application parameters). The value assigned to each of these categories and sent in the *Generic Traffic Category* IE is configurable by the operator, as well as the mapping of this value to DS field [44] at the DRNS side.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE TNL QoS type	M			
>DS Field				
>>DS field	М		BIT STRING (8)	DS field as defined in [44]. Typically used when the DRNS and its SRNC are in the same DS domain as defined in [45].
>Generic Traffic Category				
>>Generic Traffic Category	M		BIT STRING (8)	

### 9.2.1.57 ToAWE

ToAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. ToAWE is defined with a positive value relative Latest Time of Arrival (LToA). A data frame arriving after ToAWE gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWE			INTEGER (02559)	Unit: msec.

#### 9.2.1.58 ToAWS

ToAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. ToAWS is defined with a positive value relative Time of Arrival Window Endpoint (ToAWE). A data frame arriving before ToAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWS			INTEGER	Unit: msec.
			(01279)	

#### 9.2.1.58A Traffic Class

This IE indicates the type of application the Radio Bearer is optimised for.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Traffic Class			ENUMERATED (conversational, streaming, interactive,	
			background,	

#### 9.2.1.59 Transaction ID

The Transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same Transaction ID.

The Transaction ID is determined by the initiating peer of a procedure.

For procedures addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures for the same UE using the same procedure code, and initiated by the same protocol peer.

For procedures not addressed to a specific UE Context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures using the same procedure code, and initiated by the same protocol peer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Transaction ID Length				The Transaction ID shall be interpreted for its integer value, not for the type of encoding ('short' or 'long').
>Short				
>>Transaction ID Value	М		INTEGER (0127)	
>Long				
>>Transaction ID Value	М		INTEGER (032767)	

#### 9.2.1.59A Transmitted Carrier Power

The Transmitted Carrier Power IE contains the Transmitted Carrier Power in a cell, as defined in [11] & [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmitted Carrier Power			INTEGER(0100)	According to mapping in [23] and [24].

### 9.2.1.59B T<sub>UTRAN-GPS</sub> Accuracy Class

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Tutran-gps Accuracy Class			ENUMERAT	More information about
			ED(Accuracy	Measurement Accuracy Class is
			Class A,	included in [23].
			Accuracy	
			Class B,	
			Accuracy	
			Class C,)	

### 9.2.1.59C T<sub>UTRAN-GPS</sub> Measurement Threshold Information

The  $T_{UTRAN\text{-}GPS}$  Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
T <sub>UTRAN-GPS</sub> Change Limit	0		INTEGER(1256)	Change of T <sub>UTRAN-GPS</sub> value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted T <sub>UTRAN-GPS</sub> Deviation Limit	0		INTEGER(1256)	Deviation of the Predicted T <sub>UTRAN-GPS</sub> from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

# 9.2.1.59D T<sub>UTRAN-GPS</sub> Measurement Value Information

The  $T_{UTRAN-GPS}$  Measurement Value Information IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T <sub>UTRAN-GPS</sub>		1		Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	М		INTEGER (016383)	Most Significant Part
>LS	M		INTEGER (04294967 295)	Least Significant Part
T <sub>UTRAN-GPS</sub> Quality	0		INTEGER(0. .255)	Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and $\mu = E[x]$ is the expectation value of x.
T <sub>UTRAN-GPS</sub> Drift Rate	M		INTEGER(- 5050)	Indicates the T <sub>UTRAN-GPS</sub> drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
Tutran-gps Drift Rate Quality	0		INTEGER(0. .50)	Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and $\mu$ = $E[x]$ is the expectation value of x.

# 9.2.1.60 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer ID			INTEGER(04095)	

### 9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Request			ENUMERAT	
Indicator			ED(Bearer	
			Requested,	
			Bearer not	
			Requested,	
			)	

### 9.2.1.62 Transport Layer Address

In case of transport bearer establishment with ALCAP [3] [35], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [3] [35].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see [3].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address			BIT	
			STRING(11	
			60,)	

#### 9.2.1.63 Transport Format Combination Set (TFCS)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable to DL Transport Channels.

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

#### Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC(field2)). The CTFC(field2) value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC(field2) value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

#### Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC(field2) is spelt out explicitly for each value of TFCI (field2).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE DSCH	М		11010101100	
>No Split in the TFCI				This choice is made if: a) The TFCS refers to the uplink OR b) The mode is FDD and none of the Radio Links of the concerned UE are assigned any DSCH transport channels OR c) The mode is TDD
>>TFCS		1 <maxnooftfcs &gt;</maxnooftfcs 		The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on.  [TDD - The first entry (for TFCI 0) should be ignored by the receiver.]
>>>CTFC	M		9.2.1.14A	
>>>CHOICE Gain Factors >>>>Signalled Gain Factors	C- PhysChan			
>>>>Gain Factor β <sub>C</sub>	М		INTEGER(0 15)	[FDD - For UL DPCCH or control part of PRACH ref. [21].] [TDD - β for UL DPCH mapping in accordance to [13].]
>>>>Gain Factor β <sub>D</sub>	M		INTEGER(0 15)	[FDD - For UL DPDCH or data part of PRACH ref. [21].] [TDD - Should be set to 0 by the sender, and shall be ignored by the receiver.]
>>>>Reference TFC nr	0		INTEGER(0 15)	If this TFC is a reference TFC, this IE indicates the reference number
>>>Computed Gain Factors				
>>>>Reference TFC nr	М		INTEGER(0 15)	Indicates the reference TFC to be used to calculate the gain factors for this TFC
>There is a split in the TFCI				This choice is made if: a) The TFCS refers to the downlink AND b) The mode is FDD and one of the Radio Links of the concerned UE is assigned one or more DSCH transport channels
>>Transport Format Combination_DCH		1 <maxtfci_1_c ombs&gt;</maxtfci_1_c 		The first instance of the Transport Format Combination_DCH IE corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on.
>>>CTFC(field1)	М		9.2.1.14A	
>>Choice Signalling Method	М			
>>>TFCI Range				
>>>TFC Mapping on DSCH		1 <maxnotfclgr oups&gt;</maxnotfclgr 		
>>>>Max TFCI(field2)	М		INTEGER(1 <maxtfci< td=""><td>This is the Maximum value in the range of TFCI(field2)</td></maxtfci<>	This is the Maximum value in the range of TFCI(field2)

Value			_2_Combs - 1>)	values for which the specified CTFC(field2) applies
>>>>CTFC(field 2)	М		9.2.1.14A	Integer number calculated according to [16] The calculation of CTFC ignores any DCH transport channels which may be assigned
>>>Explicit				
>>>>Transport Format Combination_DSC H		1 <maxtfci_2_c ombs&gt;</maxtfci_2_c 		The first instance of the Transport Format Combination_DSCH IE corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on.
>>>>CTFC(field 2)	М		9.2.1.14A	Integer number calculated according to [16]. The calculation of CTFC ignores any DCH transport channels which may be assigned

Condition	Explanation
PhysChan	The choice shall be present if the TFCS concerns a UL DPCH
	[FDD – or PRACH channel].

Range bound	Explanation
maxnoofTFCs	The maximum number of Transport Format Combinations.
maxTFCI_1_Combs	Maximum number of TFCI (field 1) combinations (given by 2
	raised to the power of the length of the TFCI (field 1)).
maxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2
	raised to the power of the length of the TFCI (field 2)).
maxNoTFCIGroups	Maximum number of groups, each group described in terms of a
	range of TFCI(field 2) values for which a single value of
	CTFC(field2) applies.
MaxCTFC	Maximum number of the CTFC value is calculated according to
	the following:
	$\sum_{i=1}^{n} (x_i - x_i)$
	$\sum (L_i-1)P_i$
	<u>i=1</u>
	with the notation according to ref. [16].

# 9.2.1.64 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the  $2^{nd}$  Interleaving Mode IE.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dynamic Transport Format Information		1 <maxtfcount></maxtfcount>		The first instance of the parameter corresponds to TFI zero, the second to 1 and so on.
>Number of Transport Blocks	М		INTEGER (0512)	
>Transport Block Size	C – Blocks		INTEGER (05000)	Unit: Bits
>CHOICE Mode	М			
>>TDD				
>>>Transmission Time Interval Information	C- TTldynamic	1 <maxttlcount></maxttlcount>		
>>>Transmission Time Interval	M		ENUMERAT ED(10, 20, 40, 80,)	Unit: msec
Semi-static Transport Format Information		1		
>Transmission Time Interval	М		ENUMERAT ED (10, 20, 40, 80, dynamic, )	Unit: msec Value 'dynamic' for TDD only
>Type of Channel Coding	M		ENUMERAT ED (No codingTDD, Convolutiona I, Turbo,)	[FDD - The value "No codingTDD" shall be treated as logical error if received]
>Coding Rate	C – Coding		ENUMERAT ED (1/2, 1/3,) INTEGER	
>Rate Matching Attribute	М		(1maxRM)	
>CRC size	М		ENUMERAT ED (0, 8, 12, 16, 24,)	
>CHOICE Mode >>TDD	М			
>>>2 <sup>nd</sup> Interleaving Mode	М		ENUMERAT ED(Frame related, Timeslot related,)	

Condition	Explanation
Blocks	The IE shall be present if the Number of Transport Blocks IE is set
	to a value greater than 0.
Coding	The IE shall be present if Type of Channel Coding IE is set to
	"Convolutional" or "Turbo".
TTIdynamic	The IE shall be present if the Transmission Time Interval IE in the
	Semi-static Transport Format Information IF is set to 'dynamic'

Range bound	Explanation
maxTFcount	The maximum number of different transport formats that can be
	included in the Transport format set for one transport channel.
maxRM	The maximum number that could be set as rate matching attribute
	for a transport channel.
maxTTlcount	The amount of different TTI that are possible for that transport
	format is.

## 9.2.1.65 TrCH Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
TrCH Source Statistics			ENUMERAT	"Speech" = Statistics of the
Descriptor			ED(Speech,	data corresponds to speech.
			RRC,	"RRC" = Statistics of the
			Unknown,	data corresponds to RRC
			)	signalling
				"Unknown" = The statistics of
				the data is unknown

#### 9.2.1.66 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER(0.	Corresponds to: 0.0Hz
			.16383,)	3276.6MHz
				see ref. [6] and ref. [7].

#### 9.2.1.67 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL FP Mode			ENUMERAT	
			ED(Normal,	
			Silent,)	

### 9.2.1.68 UL Interference Level

Void

## 9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uncertainty semi-major	M		INTEGER( 0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 <sup>k</sup> -1)
Uncertainty semi-minor	М		INTEGER( 0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 <sup>k</sup> -1)
Orientation of major axis	M		INTEGER( 0179)	The relation between the IE value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1). The values 90179 shall not be used.

### 9.2.1.68B Unidirectional DCH Indicator

The Unidirectional DCH Indicator IE indicates that the DCH is unidirectional.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Unidirectional DCH Indicator			ENUMERATED (Downlink DCH only, Uplink DCH only)	Downlink DCH only shall only be used by TDD.

## 9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink SIR			INTEGER (- 82173)	Value = Uplink SIR/10 Unit dB Range -8.2+17.3 Step 0.1 dB

### 9.2.1.70 URA ID

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
URA ID			INTEGER(0.	
			.65 535)	

#### 9.2.1.70A UTRAN Access Point Position

The UTRAN Access Point Position indicates the exact geographical position of the base station antenna.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	M		ENUMERAT ED(North, South)	
Degrees of Latitude	M		INTEGER( 02 <sup>23</sup> -1)	The IE value (N) is derived by this formula: N≤2 <sup>23</sup> X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees of Longitude	M		INTEGER( -2 <sup>23</sup> 2 <sup>23</sup> -1)	The IE value (N) is derived by this formula: N≤2 <sup>24</sup> X /360 < N+1 X being the longitude in degree (-180°+180°)

## 9.2.1.70B URA Information

The URA Information IE contains URA Information for one cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
URA ID	М		9.2.1.70	
Multiple URAs Indicator	М		9.2.1.41	
RNCs with Cells in the Accessed URA		0 <maxrncinura- 1&gt;</maxrncinura- 		Other RNCs having at least one cell in the URA identified by the <i>URA ID</i> IE.
>RNC-ID	M		9.2.1.50	•

Range Bound	Explanation
maxRNCinURA	Maximum number of RNC in one URA.

# 9.2.1.71 UTRAN Cell Identifier (UC-ID)

The UC-ID (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-ID	M		9.2.1.50	
C-ID	M		9.2.1.6	

# 9.2.1.72 Neighbouring TDD Cell Information LCR

The *Neighbouring TDD Cell Information LCR* IE provides information for 1.28Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring TDD Cell Information LCR		1 <maxno ofLCRTDD neighbour s&gt;</maxno 			-	
>C-ID	M		9.2.1.6		_	
>UARFCN	М		9.2.1.66	Corresponds to Nt in ref. [7]	-	
>Frame Offset	0		9.2.1.30		_	
>Cell Parameter ID	M		9.2.1.8		_	
>SCTD Indicator	M		9.2.1.78		_	
>Cell Individual Offset	0		9.2.1.7		_	
>DPCH Constant Value	0		9.2.1.23		_	
>PCCPCH Power	0		9.2.1.43		_	
>Restriction State Indicator	0		9.2.1.48C		_	
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.2C		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container TDD LCR	0		9.2.3.1b		YES	ignore
> SNA Information	0		9.2.1.52Ca		YES	ignore

Range bound	Explanation
maxnoofLCRTDDneighbours	Maximum number of neighbouring 1.28Mcps TDD cell for one cell.

## 9.2.1.73 Permanent NAS UE Identity

This element is used to identify the UE in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Choice Permanent NAS UE Identity				
>IMSI				
>>IMSI	M		9.2.1.31	

#### 9.2.1.74 SFN-SFN Measurement Reference Point Position

The SFN-SFN Measurement Reference Point Position indicates the exact geographical position of the SFN-SFN measurement reference point. The altitude shall be included when available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	0		9.2.1.2B	

### 9.2.1.75 UTRAN Access Point Position with Altitude

The UTRAN Access Point Position with Altitude indicates the exact geographical position of the base station antenna. The altitude shall be included when available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	0		9.2.1.2B	

## 9.2.1.76 SFN-SFN Measurement Time Stamp

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Mode	M			
>FDD				
>>SFN	M		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>TDD				
>>SFN	M		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	M		9.2.1.56	Indicates the Time Slot of the reference cell at which this measurement has been performed.

### 9.2.1.77 SFN-SFN Value

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Mode	M			
>FDD				
>>SFN-SFN	M		INTEGER(0. . 614399)	According to mapping in [23].
>TDD				
>>SFN-SFN	M		INTEGER(0. . 40961)	According to mapping in [24].

#### 9.2.1.78 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCTD Indicator			ENUMERAT ED(active, inactive)	

## 9.2.1.79 Congestion Cause

The Congestion Cause IE indicates the cause of a congestion situation:

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Congestion Cause			ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources, )	

The meaning of the different congestion cause values is described in the following table:

Congestion cause	Meaning
UTRAN Dynamic Resources	UL and/or DL resource congestion situation mainly caused by the UL
	and/or DL UTRAN Dynamic Resources. This type of congestion situation
	is, e.g. related to the limitation of the DL transmitted carrier power of the
	cell(s), or the UL Interference situation in the concerned cell(s).
UTRAN Semistatic Resources	UL and/or DL resource congestion situation mainly related to UTRAN
	Semistatic Resources (e.g. channelisation codes, Node-B resources,).

# 9.2.2 FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

### 9.2.2.a ACK-NACK Repetition Factor

The ACK-NACK Repetition Factor IE indicates the consecutive repetition of the ACK and NACK.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ACK-NACK Repetition			INTEGER	Step: 1
Factor			(1,4,)	

#### 9.2.2.b ACK Power Offset

The ACK Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ ACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ACK Power Offset			INTEGER (08)	According to mapping in ref. [21] subclause 4.2.1.

## 9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CM Configuration Change CFN	М		CFN 9.2.1.9	
Transmission Gap Pattern Sequence Status		0 <maxtgps></maxtgps>		If the group is not present, none of the pattern sequences are activated.
>TGPSI Identifier	M		INTEGER(1. . <maxtgps &gt;)</maxtgps 	Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be activated.</maxtgps>
>TGPRC	M		INTEGER(0511)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity.
>TGCFN	М		CFN 9.2.1.9	Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence.

Range bound	Explanation
maxTGPS	Maximum number of active pattern sequences. Value 6.

# 9.2.2.B Adjustment Period

Adjustment Period IE defines the period to be used for power balancing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Period			INTEGER	Unit: Frames
			(1 256)	

# 9.2.2.C Adjustment Ratio

Adjustment Ratio IE (Radj) defines the convergence rate used for the associated Adjustment Period.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Ratio			INTEGER (0 100)	The Adjustment Ratio is given with a granularity of 0.01 0 -> 0.00 1 -> 0.01 100 -> 1.00

# 9.2.2.D Cell Capability Container FDD

The Cell Capability Container FDD indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container FDD			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.  The first bit: Flexible Hard Split Support Indicator. The second bit: Delayed Activation Support Indicator. The third bit: HS-DSCH Support Indicator. The fourth bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

## 9.2.2.1 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip Offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Chip Offset			INTEGER	Unit: Chips
			(038399)	

## 9.2.2.2 Closed Loop Mode1 Support Indicator

The Closed Loop Mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Closed Loop Mode1 Support			ENUMERAT	
Indicator			ED(Closed	
			loop mode1	
			Supported,	
			Closed loop	
			mode1 not	
			supported).	

# 9.2.2.3 Closed Loop Mode2 Support Indicator

The Closed Loop Mode2 Support Indicator indicates whether the particular cell is capable to support Closed loop mode2 or not.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Closed Loop Mode2 Support			ENUMERAT	
Indicator			ED(Closed	
			loop mode2	
			Supported,	
			Closed loop	
			mode2 not	
			supported).	

# 9.2.2.3A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Closed Loop Timing Adjustment Mode			ENUMERAT ED(Offset1, Offset2,)	According to [10] subclause 7.1: Offset1 = slot(j+1)mod15
				Offset2 = slot(j+2)mod15

## 9.2.2.4 Compressed Mode Method

Void

### 9.2.2.4A DCH FDD Information

The DCH FDD Information IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH FDD Information		1 <maxno ofdchs=""></maxno>			_	
>Payload CRC Presence Indicator	М		9.2.1.42		_	
>UL FP Mode	М		9.2.1.67		_	
>ToAWS	М		9.2.1.58		_	
>ToAWE	М		9.2.1.57		_	
>DCH Specific Info		1 <maxno ofDCHs&gt;</maxno 			_	
>>DCH ID	М		9.2.1.16		_	
>>TrCH Source Statistics Descriptor	М		9.2.1.65		_	
>>Transport Format Set	М		9.2.1.64	For the UL.	_	
>>Transport Format Set	М		9.2.1.64	For the DL.	_	
>>BLER	М		9.2.1.4	For the UL.	_	
>>BLER	М		9.2.1.4	For the DL.	_	
>>Allocation/Retention Priority	М		9.2.1.1		_	
>>Frame Handling Priority	М		9.2.1.29		_	
>>QE-Selector	М		9.2.1.46A		_	
>>DRAC control	М		9.2.2.13		_	
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>>Traffic Class	М		9.2.1.58A		YES	ignore
>>Unidirectional DCH Indicator	0		9.2.1.68B		YES	reject
>TNL QoS	0		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.2.5 D-Field Length

Void

9.2.2.6 Diversity Control Field

Void.

9.2.2.7 Diversity Indication

Void.

9.2.2.8 Diversity Mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Mode			ENUMERAT	
			ED(None,	
			STTD,	
			Closed loop	
			mode 1,	
			Closed loop	
			mode2,)	

### 9.2.2.9 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Slot Format			INTEGER	
			(016,)	

### 9.2.2.9A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required. It also indicates whether the timing adjustment shall consist of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Timing Adjustment			ENUMERAT ED(timing	The size of the timing adjustment is 256 chips.
rajuotinent			advance, timing delay)	adjustinont is 200 onipo.

#### 9.2.2.10 DL Power

Void

## 9.2.2.10A DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Power Adjustment Type	M		9.2.2.28		_	
DL Reference Power	C-Common		DL power 9.2.1.21A	Power on DPCH	_	
DL Reference Power Information	C-Individual	1 <maxnoof RLs&gt;</maxnoof 			-	
>RL ID	M		9.2.1.49		_	
>DL Reference Power	M		DL power 9.2.1.21A	Power on DPCH	-	
Max Adjustment Step	C- CommonOrIn dividual		9.2.2.23		_	
Adjustment Period	C- CommonOrIn dividual		9.2.2.B		-	
Adjustment Ratio	C- CommonOrIn dividual		9.2.2.C		_	

Condition	Explanation
Common	The IE shall be present if the Power Adjustment Type IE is set to
	"Common".
Individual	The IE shall be present if the Power Adjustment Type IE is set to
	"Individual".
CommonOrIndividual	The IE shall be present if the Power Adjustment Type IE is set to
	"Common" or "Individual".

Range Bound	Explanation
maxnoofRLs	Maximum number of Radio Links for a UE.

## 9.2.2.10B DL Power Balancing Activation Indicator

The DL Power Balancing Activation Indicator IE indicates that the power balancing is activated in the RL.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
DL Power Balancing			ENUMERATED(DL	
Activation Indicator			Power Balancing	
			Activated).	

### 9.2.2.10C DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			,
Common DL Reference	0		DL power	Power on	_	
Power			9.2.1.21A	DPCH		
Individual DL Reference		0 <maxnoof< td=""><td></td><td></td><td>_</td><td></td></maxnoof<>			_	
Power Information		RLs>				
>RL ID	M		9.2.1.49		_	
>DL Reference Power	М		DL power	Power on	_	
			9.2.1.21A	DPCH		

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

## 9.2.2.10D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing			ENUMERATED(DL	
Updated Indicator			Power Balancing	
			Updated).	

## 9.2.2.11 DL Scrambling Code

DL Scrambling code to be used by the RL. One cell may have multiple DL Scrambling codes available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code			INTEGER	0= Primary scrambling code
			(015)	of the cell
				115= Secondary
				scrambling code

# 9.2.2.12 Downlink Frame Type

Void

### 9.2.2.12A DPC Mode

The DPC Mode IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode			ENUMERAT TED (Mode0, Mode1, )	Mode0: The DRNS shall estimate the UE transmitted TPC command and update the DL power in every slot Mode1: The DRNS shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

### 9.2.2.13 DRAC Control

This IE indicates whether the DCH is control by DRAC or not.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
DRAC Control			ENUMERAT	Requested means that
			ED	DCH is controlled by DRAC
			(Requested,	·
			Not-	
			Requested)	

#### 9.2.2.13A DSCH FDD Information

The DSCH FDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH Specific FDD Information		1 <maxno ofDSCHs&gt;</maxno 		See Note 1 below.	-	
>DSCH ID	M		9.2.1.26A		_	
>TrCH Source Statistics Descriptor	М		9.2.1.65		_	
>Transport Format Set	M		9.2.1.64	For DSCH	_	
>Allocation/Retention Priority	M		9.2.1.1		_	
>Scheduling Priority Indicator	M		9.2.1.51A		_	
>BLER	M		9.2.1.4		_	
>Traffic Class	M		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
PDSCH RL ID	M		RL ID 9.2.1.49		_	
TFCS	М		9.2.1.63	For DSCH	_	
Enhanced DSCH PC	0		9.2.2.13D		YES	ignore

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE.

Note 1: This information element is a simplified representation of the ASN.1. Repetition 1 and repetition 2-maxnoofDSCHs are represented by separate ASN.1 structures with different criticality.

#### 9.2.2.13B DSCH FDD Information Response

The DSCH FDD Information Response IE provides information for DSCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH Specific FDD Information Response		1 <maxno ofDSCHs&gt;</maxno 			I	
>DSCH ID	M		9.2.1.26A		-	
>DSCH Flow Control Information	M		9.2.1.26B		-	
>Binding ID	0		9.2.1.3		-	
>Transport Layer Address	0		9.2.1.62		-	
PDSCH Code Mapping	M		9.2.2.27A	PDSCH code mapping to be used	-	

Range bound	Explanation		
maxnoofDSCHs	Maximum number of DSCHs for one UE.		

### 9.2.2.13Bb DSCH-RNTI

Void.

## 9.2.2.13C FDD DCHs To Modify

The FDD DCHs To Modify IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD DCHs To Modify		1 <maxno ofDCHs&gt;</maxno 			_	
>UL FP Mode	0		9.2.1.67		_	
>ToAWS	0		9.2.1.58		_	
>ToAWE	0		9.2.1.57		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>DCH Specific Info		1 <maxno ofDCHs&gt;</maxno 			-	
>>DCH ID	M		9.2.1.16		_	
>>Transport Format Set	0		9.2.1.64	For the UL.	_	
>>Transport Format Set	0		9.2.1.64	For the DL.	_	
>>Allocation/Retention Priority	0		9.2.1.1		_	
>>Frame Handling Priority	0		9.2.1.29		_	
>>DRAC Control	0		9.2.2.13		_	
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>>Traffic Class	0		9.2.1.58A		YES	ignore
>TNL QoS	0		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

### 9.2.2.13D Enhanced DSCH PC

The Enhanced DSCH PC includes all the parameters which are needed for DSCH power control improvement during soft handover.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Wnd	M		9.2.2.13G	
Enhanced DSCH PC Counter	M		9.2.2.13E	
Enhanced DSCH Power Offset	M		9.2.2.13H	

#### 9.2.2.13E Enhanced DSCH PC Counter

The Enhanced DSCH PC Counter parameter gives the number of correct cell ID command to receive in the averaging window, *Enhance DSCH PC Wnd* IE, see ref. [10] subclause 5.2.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC			INTEGER(1.	
Counter			.50)	

#### 9.2.2.13F Enhanced DSCH PC Indicator

The Enhanced DSCH PC Indicator indicates whether Enhanced DSCH PC is in use by the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Indicator			ENUMERAT ED(Enhance d DSCH PC Active in the UE, Enhanced DSCH PC not Active in the UE)	

#### 9.2.2.13G Enhanced DSCH PC Wnd

The Enhanced DSCH PC Wnd parameter shows the window size to decide primary or non-primary cell, see ref. [10] subclause 5.2.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Wnd			INTEGER(1.	
			.10)	

#### 9.2.2.13H Enhanced DSCH Power Offset

The Enhanced DSCH Power Offset parameter gives the power offset to be added on DSCH when cell is decided to be primary.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH Power Offset			INTEGER(- 150)	Unit dB, step 1 dB

### 9.2.2.13I Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Enhanced Primary CPICH			INTEGER(0.	According to the mapping of
Ec/No			.49)	the Primary CPICH Ec/lo UE
				measurement defined in ref.
				[23] and [24]

#### 9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Channelisation			INTEGER(0.	According to the mapping in
Code Number			. 511)	[27].
				The maximum value is equal
				to the DL spreading factor -1

#### 9.2.2.14A FDD DL Code Information

The FDD DL Code Information IE provides FDD DL Code information for all DPCHs of one Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD DL Code Information		1 <maxnoof DLCodes</maxnoof 			_	
>DL Scrambling Code	M		9.2.2.11		_	
>FDD DL Channelisation Code Number	М		9.2.2.14		_	
>Transmission Gap Pattern Sequence Scrambling Code Information	0		9.2.2.47B		_	

Range bound	Explanation
maxnoofDLCodes	Maximum number of DL Channelisation Codes for
	one UE.

#### 9.2.2.15 FDD S-CCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of  $256\,\mathrm{chips}$ .

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD S-CCPCH Offset			INTEGER(0. . 149)	0: 0 chip 1: 256 chip 2: 512 chip
				 149: 38144 chip ref. [8]

## 9.2.2.16 FDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
FDD TPC Downlink Step			ENUMERAT	
Size			ED(0.5, 1,	
			1.5, 2,)	ļ

### 9.2.2.16A First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
First RLS Indicator			ENUMERAT	
			ED(first RLS,	
			not first RLS)	

9.2.2.17 Gap Position Mode

Void.

9.2.2.18 Gap Period (TGP)

Void.

9.2.2.19 Gap Starting Slot Number (SN)

Void

## 9.2.2.19a HS-DSCH FDD Information

The HS-DSCH FDD Information IE is used for initial addition of HS-DSCH information to UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flows Information	M		9.2.1.30OA	
UE Capabilities Information		1		
>HS-DSCH Physical Layer Category	M		9.2.1.30Oa	
MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.34Ab	
CQI Feedback Cycle k	M		9.2.2.24a	
CQI Repetition Factor	C- CQICyclek		9.2.2.24c	
ACK-NACK Repetition Factor	M		9.2.2.a	
CQI Power Offset	M		9.2.2.24b	
ACK Power Offset	М		9.2.2.b	
NACK Power Offset	М		9.2.2.26a	
HS-SCCH Power Offset	0		9.2.2.19d	

Condition	Explanation
CQICyclek	The IE shall be present if the CQI Feedback Cycle k IE is set to
	a value greater than 0.

# 9.2.2.19b HS-DSCH FDD Information Response

The *HS-DSCH FDD Information Response* IE provides information for HS-DSCH MAC-d flows that have been established or modified. It also provides additional HS-DSCH information determined within the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flow Specific Information Response		0 <maxnoof MACdFlows &gt;</maxnoof 	1101010100	
>HS-DSCH MAC-d Flow ID	М		9.2.1.300	
>Binding ID	0		9.2.1.3	
>Transport Layer Address	0		9.2.1.62	
>HS-DSCH Initial Capacity Allocation	0		9.2.1.30Na	
HS-SCCH Specific Information Response		0 <maxnoof HSSCCHco des&gt;</maxnoof 		
>Code Number	M		INTEGER (0127)	
HS-PDSCH And HS-SCCH Scrambling Code	0		DL Scrambling Code 9.2.2.11	
Measurement Power Offset	0		9.2.2.24d	
CHOICE HARQ Memory Partitioning	0			
>Implicit				
>>Number of Processes	М		INTEGER (18,)	For HARQ process IDs going from 0 to 'Number of Processes' – 1 the Total number of soft channel bits [42] is partitioned equally between all HARQ processes according to the rules in [16].
>Explicit				
>>HARQ Memory Partitioning Information		1 <maxnoof HARQproce sses&gt;</maxnoof 		The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on.
>>>Process Memory Size	М		9.2.1.45B	See [16]

Range bound	Explanation		
maxnoofMACdFlows	Maximum number of MAC-d flows.		
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes.		
maxnoofHARQprocesses	Maximum number of HARQ processes.		

### 9.2.2.19c HS-DSCH FDD Update Information

The *HS-DSCH FDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
HS-SCCH Code Change Indicator	0		9.2.1.30R		_	
CQI Feedback Cycle k	0		9.2.2.24a		_	
CQI Repetition Factor	0		9.2.2.24c		_	
ACK-NACK Repetition Factor	0		9.2.2.a		_	
CQI Power Offset	0		9.2.2.24b		_	
ACK Power Offset	0		9.2.2.b		_	
NACK Power Offset	0		9.2.2.26a		_	

#### 9.2.2.19d HS-SCCH Power Offset

The HS-SCCH Power Offset IE indicates the Power offset relative to the pilot bits on the DL DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-SCCH Power Offset			INTEGER (0255)	Step 0.25 dB, range -32- +31.75 dB

### 9.2.2.20 IB\_SG\_POS

First position of an Information Block segment in the SFN cycle (IB\_SG\_POS < IB\_SG\_REP).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_POS			INTEGER	Only even positions allowed.
			(04094)	Reference [16]

### 9.2.2.21 IB\_SG\_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod  $IB\_SG\_REP = IB\_SG\_POS$ .

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
IB_SG_REP			ENUMERAT	Repetition period for the IB
			ED(4, 8, 16,	segment in frames
			32, 64, 128,	
			256, 512,	
			1024, 2048,	
			4096)	

### 9.2.2.21a Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links for the UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Inner Loop DL PC Status			ENUMERAT	
·			ED(Active,	
			Inactive)	

#### 9.2.2.21A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, DRNS shall use the limited power increase algorithm as specified in [10], subclause 5.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Limited Power Increase			ENUMERAT	
			ED(Used,	
			Not used,)	

#### 9.2.2.21B IPDL FDD Parameters

The IPDL FDD Parameters IE provides the information for the IPDL Configuration applied in FDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP spacing FDD	М		ENUMERAT ED(5,7,10,1 5,20,30,40,5 0,)	See [10]
IP length	M		ENUMERAT ED(5,10,)	See [10]
IP offset	M		INTEGER(09)	See [10]
Seed	M		INTEGER(063)	See [10]
Burst mode parameters	0		9.2.1.4B	

### 9.2.2.21C Length of TFCI2

This IE indicates the length measured in number of bits of TFCI(field 2). The length of TFCI (field 1) is set to the 10"s complement of the length of TFCI(field 2).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Length of TFCI2			INTEGER(110)	

### 9.2.2.22 Max Adjustment Period

Void.

### 9.2.2.23 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustments shall be maximum 1 dB. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Adjustment Step			INTEGER(1.	Slots
			.10)	

#### 9.2.2.24 Max Number of UL DPDCHs

Maximum number of uplink DPDCHs during the connection. Needed by the rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Number of UL DPDCHs			INTEGER (16)	

### 9.2.2.24a CQI Feedback Cycle k

The CQI Feedback Cycle k IE provides the duration of the CQI feedback cycle.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CQI Feedback Cycle k			ENUMERAT	Unit ms
_			ED (0, 2, 4,	
			8, 10, 20, 40,	
			80, 160,)	

#### 9.2.2.24b CQI Power Offset

The *CQI Power Offset* IE indicates Power offset used in the UL between the HS-DPCCH slots carrying CQI information and the associated DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CQI Power Offset			INTEGER	According to mapping in ref.
			(08,)	[21] subclause 4.2.1.

### 9.2.2.24c CQI Repetition Factor

The CQI Repetition Factor IE indicates the consecutive repetition of the CQI.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CQI Repetition Factor			INTEGER (1,4,)	Step: 1

#### 9.2.2.24d Measurement Power Offset

The Measurement Power Offset IE is used as defined in [10] subclause 6A.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Power Offset			INTEGER (-1226)	Unit: dB
				Range: -613dB
				Step: 0.5dB

### 9.2.2.24A Min DL Channelisation Code Length

Void

## 9.2.2.25 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH during the connection. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Min UL Channelisation Code Length			ENUMERAT ED(4,8,16,	
			32,64,128, 256)	

### 9.2.2.26 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Multiplexing Position			ENUMERAT	
			ED(Fixed,	
			Flexible)	

#### 9.2.2.26a NACK Power Offset

The NACK Power Offset IE indicates Power offset used in the UL between the HS-DPCCH slot carrying HARQ NACK information and the associated DPCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
NACK Power Offset			INTEGER	According to mapping in ref.
			(08,)	[21] subclause 4.2.1.

#### 9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number of DL			INTEGER(1.	
Channelisation Codes			.8)	

### 9.2.2.27 Pattern Duration (PD)

Void

#### 9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCP Preamble			INTEGER(07,)	In number of frames.

### 9.2.2.27A PDSCH Code Mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH. A fourth option is also provided which allows the UTRAN to replace individual entries in the TFCI(field 2) to PDSCH code mapping table with new PDSCH code values.

#### Method #1 - Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. Each TFCI(field2) value corresponds to a given PDSCH channelisation code or set of PDSCH codes for multi-code. The DRNS maps TFCI(field2) values to PDSCH codes in the following way:

- The PDSCH codes used for TFCI(field 2) = 0 are given by the SF of the Code Group 1 (i.e. first instance in *PDSCH code mapping*) and the code numbers between CodeNumber<sub>0</sub> (where CodeNumber<sub>0</sub> = "Start code number" of Code Group 1) and CodeNumber<sub>0</sub> + "multi-code info" 1.
- This continues with unit increments in the value of TFCI (Field2) mapped to either unit increments in code numbers or groups of contiguous code numbers in case of multi-code, this until "Stop code number" is reached: So the PDSCH codes used for TFCI(field 2) = k (for k > 0 and k < ("Stop code number" "Start code number" + 1) DIV k) are given by the SF of the Code Group 1 and the code numbers between CodeNumber<sub>k</sub> = CodeNumber<sub>k-1</sub> + "multi-code info" and CodeNumber<sub>k</sub> + "multi-code info" 1.
   If "Stop code number" = "Start code number" + "multi-code info" 1 then this is to be interpreted as defining the mapping between the channelisation code(s) and a single TFCI.
- The DRNS constructs its mapping table by repeating this process for all the Code Groups in the order they are instantiated in *PDSCH code mapping*. The first TFCI(field 2) value used in each group is the largest TFCI(field 2) value reached in the previous group incremented by one.

Note: This imposes that "Stop code number" – "Start code number" + 1 is a multiple of the value "multi-code info" for each instance of *PDSCH code mapping*. Furthermore, in the case in which multi-code is not used, then "multi-code info" = 1 and the process above also applies.

#### Method #2 - Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code or set of PDSCH codes for multi-code.

- The set of PDSCH codes specified in the first instance applies for all values of TFCI(field 2) between 0 and the specified "Max TFCI(field2)".
- The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous instance incremented by one. So the set of PDSCH codes specified in a given instance apply for all the values of TFCI(field 2) between the "Max TFCI(field2) value" specified in the previous instance incremented by one and the specified "Max TFCI(field2)" of the considered instance.

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" – 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

#### Method #3 - Explicit

The mapping between TFCI (field 2) value and PDSCH channelisation code (or a set of PDSCH codes for multicode) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

#### Method #4 - Replace

The "TFCI (field2)" value(s) for which the mapping to PDSCH channelisation code (or a set of PDSCH codes for multicode) is changed are explicitly signalled. Furthermore, the new mapping between TFCI(field 2) value and PDSCH channelisation code(s) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code	M		9.2.2.1 1	

Choice Signalling Method	М			
>Code Range				
>>PDSCH Code Mapping		1 <maxno< td=""><td></td><td></td></maxno<>		
		CodeGrou ps>		
>>>Spreading Factor	M	μ3>	INTEGER	
l service and serv			(4, 8, 16, 32,	
			64, 128,	
>>>Multi-code Info	M		256) INTEGER(1.	
>>>Wuiti-code info	IVI		.16)	
>>>Start Code Number	М		INTEGER(0.	PDSCH code start, Numbering
			.maxCodeNu	as described in [16]
			mComp-1)	
>>>Stop Code Number	М		INTEGER(0maxCodeNu	PDSCH code stop, Numbering
			mComp-1)	as described in [16]
>TFCI Range			11100mp 1)	
>>DSCH Mapping		1 <maxno< td=""><td></td><td></td></maxno<>		
		TFCIGroup		
May TECI(field) Value	M	S>	INTEGED/4	This is the province we well as in
>>>Max TFCI(field2) Value	IVI		INTEGER(11023)	This is the maximum value in the range of TFCI(field 2)
			.1020)	values for which the specified
				PDSCH code applies
>>>Spreading Factor	M		INTEGER	SF of PDSCH code
			(4, 8, 16, 32, 64, 128,	
			256)	
>>>Multi-code Info	М		INTEGER(1.	
			.16)	
>>>Code Number	M		INTEGER(0.	Code number of PDSCH code.
			.maxCodeNu mComp-1)	Numbering as described in [16]
>Explicit			moomp-1)	[10]
>>PDSCH Code		1 <maxtf< td=""><td></td><td>The first instance of the</td></maxtf<>		The first instance of the
		CI_2_Com		parameter PDSCH code
		bs>		corresponds to TFCI (field2) = 0, the second to TFCI(field 2)
				= 1 and so on.
>>>Spreading Factor	M		INTEGER	SF of PDSCH code
			(4, 8, 16, 32,	
			64, 128,	
>>>Multi-code Info	M		256) INTEGER(1.	
>> Widiti-code IIIIO	l IVI		.16)	
>>>Code Number	М		INTEGER(0.	Code number of PDSCH code.
			.maxCodeNu	Numbering as described in
>Replace			mComp-1)	[16]
>>Replace >>Replaced PDSCH code		1 <maxtf< td=""><td></td><td></td></maxtf<>		
77.100.0001.2001.0000		CI_2_Com		
		bs>		
>>>TFCI (field2)	M		INTEGER(1.	Value of TFCI(field 2) for
			.1023)	which PDSCH code mapping will be changed
>>>Spreading Factor	M		INTEGER	SF of PDSCH code
			(4, 8, 16, 32,	1 1 2 2 2 2 2
			64, 128,	
Multi ocala lata	N4		256)	
>>>Multi-code Info	М		INTEGER(116)	
>>>Code Number	M		INTEGER(0.	Code number of PDSCH code.
			.maxCodeNu	Numbering as described in
			mComp-1)	[16]

Range Bound	Explanation
maxCodeNumComp	Maximum number of codes at the defined spreading
	factor, within the complete code tree.
maxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations
	(given by 2 raised to the power of the length of the TFCI field 2)
maxNoTFCIGroups	Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single PDSCH code applies.
maxNoCodeGroups	Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies.

## 9.2.2.27B Phase Reference Update Indicator

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

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

## 9.2.2.28 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type			ENUMERAT	
			ED(None,	
			Common,	
			Individual)	

## 9.2.2.29 Power Control Mode (PCM)

Void.

### 9.2.2.30 Power Offset

This IE defines a power offset respect the Downlink transmission power of a DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Offset				Unit dB, Step 0.25 dB, range
			INTEGER(0.	0-6 dB
			.24)	

# 9.2.2.31 Power Resume Mode (PRM)

Void.

## 9.2.2.31A Preamble Signatures

Void.

## 9.2.2.32 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Ec/No			INTEGER(- 30+30)	Unit dB, step 1 dB The value range is typically within the range of -24 dB to 0 dB according to the CPICH Ec/lo UE measurement defined in ref. [23].

## 9.2.2.32A Primary CPICH Usage For Channel Estimation

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

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

## 9.2.2.33 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Propagation Delay				Unit: Chips. Step: 3 chips.
			INTEGER(0.	0=0 chips,
			.255)	1=3 chips

## 9.2.2.33A PRACH Minimum Spreading Factor

Void.

9.2.2.34 QE-Selector

Void.

#### 9.2.2.34a Qth Parameter

This parameter indicates the Quality threshold for reliable detection of primary cell ID in SSDT [10].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Qth Parameter			INTEGER (-	Unit dB
			200)	Range: - 20 0 dB
				Step 1 dB

#### 9.2.2.34A RACH Sub Channel Numbers

Void.

### 9.2.2.35 RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Set ID			INTEGER (031)	

#### 9.2.2.35A Received Total Wide Band Power

The parameter indicates the Received total wide band power in a cell, see ref. [11].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Received Total Wide			INTEGER(0.	According to mapping in [23].
Band Power			.621)	

## 9.2.2.36 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SSDT Cell ID to the network.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
S Field Length			ENUMERAT	
			ED(1, 2,)	

## 9.2.2.37 Scrambling Code Change

Void.

## 9.2.2.37A Scrambling Code Number

Void.

### 9.2.2.37B Secondary CCPCH Info

The Secondary CCPCH Info IE provides information on scheduling of broadcast information for DRAC on a Secondary CCPCH in one cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD S-CCPCH Offset	М		9.2.2.15	to: $\tau_{\text{S-CCPCH,k}}$ , see ref. [8]	_	
DL Scrambling Code	М		9.2.2.11	,	_	
FDD DL Channelisation Code Number	М		9.2.2.14		_	
TFCS	M		9.2.1.63	For the DL.	_	
Secondary CCPCH Slot Format	М		9.2.2.38		_	
TFCI Presence	C - SlotFormat		9.2.1.55		1	
Multiplexing Position	M		9.2.2.26		_	
STTD Indicator	M		9.2.2.44		_	
FACH/PCH Information		1 <maxfac Hcount+1&gt;</maxfac 			_	
>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	_	
IB Scheduling Information		1			_	
>IB_SG_REP	М		9.2.2.21		_	
>IB Segment Information		1 <maxibse G&gt;</maxibse 			_	
>>IB_SG_POS	M		9.2.2.20		_	

Condition	Explanation			
SlotFormat	The IE shall be present if the Secondary CCPCH Slot Format IE is			
	equal to any of the values from 8 to 17.			

Range bound	Explanation
maxFACHCount	Maximum number of FACHs mapped onto a Secondary CCPCH.
maxIBSEG	Maximum number of segments for one Information Block.

# 9.2.2.38 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Secondary CCPCH Slot Format			INTEGER(017,)	See ref. [8].

# 9.2.2.38A Secondary CPICH Information

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

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

## 9.2.2.38B Secondary CPICH Information Change

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Secondary CPICH Information Change	М			
>New Secondary CPICH				
>>Secondary CPICH Information	М		9.2.2.38A	
>Secondary CPICH Shall Not Be Used			NULL	

## 9.2.2.39 Slot Number (SN)

Void

## 9.2.2.39a Split Type

This parameter indicates if the "Hard" or "Logical" is used for the TFCI split mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Split Type			ENUMERAT ED(Hard, Logical)	'Hard': meaning that TFCI (field 1) and TFCI (field 2) are each 5 bits long and each field is block coded separately.  'Logical': meaning that on the physical layer TFCI (field 1) and TFCI (field 2) are concatenated, field 1 taking the most significant bits and field 2 taking the least significant bits). The whole is then encoded with a single block code.

### 9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SRB Delay			INTEGER(07,)	In number of frames.

## 9.2.2.40 SSDT Cell Identity

The SSDT Cell Identity is a temporary ID for SSDT assigned to a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Cell Identity			ENUMERAT	
			ED(a, b, c, d,	
			e, f, g, h)	

## 9.2.2.40A SSDT Cell Identity for EDSCHPC

The SSDT Cell Identity for EDSCHPC is a temporary ID for enhanced DSCH power control assigned to a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Cell Identity for			SSDT Cell	
EDSCHPC			Identity	
			9.2.2.40	

## 9.2.2.41 SSDT Cell Identity Length

The SSDT Cell Identity Length parameter shows the length of the SSDT Cell ID.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Cell Identity Length			ENUMERAT ED(Short,	
			Medium, Long)	

### 9.2.2.42 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Indication			ENUMERAT ED(SSDT Active in the UE, SSDT not Active in the UE)	

## 9.2.2.43 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Support Indicator			ENUMERAT	
			ED(SSDT	
			Supported,	
			SSDT not	
			supported).	

#### 9.2.2.44 STTD Indicator

Indicates if STTD is active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
STTD Indicator			ENUMERAT ED(active, inactive)	

## 9.2.2.45 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH in the cell or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
STTD Support Indicator			ENUMERAT ED(STTD	
			Supported,	
			STTD not	
			Supported).	

## 9.2.2.46 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
TFCI Signalling Mode			ENUMERAT	
			ED(Normal,	
			Split)	

## 9.2.2.46A TFCI PC Support Indicator

The TFCI PC Support Indicator indicates whether the TFCI power control in the DSCH hard split mode can be applied to DL DPCH in the cell or not. TFCI PC Mode 1 means that the only one power offset(TFCI PO[4]) is applied in TFCI power control. TFCI PC Mode 2 means that the cell also supports enhanced DSCH power control and two power offset(TFCI PO and TFCI PO\_primary[4]) are applied in TFCI power control.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI PC Support Indicator			ENUMERAT	
			ED(TFCI PC	
			Mode 1	
			Supported,	
			TFCI PC	
			Mode 2	
			Supported)	

## 9.2.2.47 Transmission Gap Distance (TGD)

Void.

### 9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxtgps></maxtgps>		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps &gt;)</maxtgps 	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	M		INTEGER(014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER(114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER(114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	М		INTEGER (0, 15 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 = undefined).
>TGPL1	М		INTEGER( 1144,)	The duration of transmission gap pattern 1 in frames.
>TGPL2	0		INTEGER( 1144,)	The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL mode	M		ENUMERAT ED(UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERAT ED(puncturin g, SF/2, higher layer scheduling, )	Method for generating downlink compressed mode gap .
>Uplink Compressed Mode Method	C-UL		ENUMERAT ED(SF/2, higher layer scheduling, )	Method for generating uplink compressed mode gap.
>Downlink Frame Type	М		ENUMERAT ED(A, B,)	Defines if frame type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER(030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) Step 0.1 dB, Range 0-3dB
>DeltaSIRafter1	M		INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after

			the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1 dB, Range 0-3dB
>DeltaSIRafter2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

Condition	Explanation
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or
	"UL/DL".
DL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "DL only" or
	"UL/DL".

Range bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences.

## 9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information

This IE indicates whether or not the alternative scrambling code will be used in the DRNS for the Downlink compressed mode method "SF/2" in the Transmission Gap Pattern Sequence. For details see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Scrambling Code Information			ENUMERAT ED(code change, no code change)	Code change = alternative scrambling code will be used.

### 9.2.2.48 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether Transmit Diversity shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmit Diversity Indicator			ENUMERAT	
_			ED(active,	
			inactive)	

# 9.2.2.49 Transmit Gap Length (TGL)

Void

### 9.2.2.50 Tx Diversity Indicator

The Tx Diversity Indicator indicates if the following conditions are satisfied:

- Primary CPICH is broadcast from two antennas
- STTD is applied to Primary CCPCH
- TSTD is applied to Primary SCH and Secondary SCH

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Tx Diversity Indicator			ENUMERAT	
			ED(true,	
			false).	

## 9.2.2.50A UE Support Of Dedicated Pilots For Channel Estimation

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

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

### 9.2.2.50B UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

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

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

### 9.2.2.51 UL/DL Compressed Mode Selection

Void

#### 9.2.2.52 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPCCH Slot Format			INTEGER (05,)	

## 9.2.2.53 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Scrambling Code Number	М		INTEGER (0 2 <sup>24</sup> -1)	
UL Scrambling Code Length	M		ENUMERAT ED(Short, Long)	

9.2.2.54 Uplink Delta SIR

Void

9.2.2.55 Uplink Delta SIR After

Void

## 9.2.2.56 DPC Mode Change Support Indicator

The DPC Mode Change Support Indicator IE indicates that the particular cell is capable to support DPC mode change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode Change Support			ENUMERATTE	
Indicator			D (DPC Mode	
			Change	
			Supported)	

# 9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

### 9.2.3.a Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Alpha Value			ENUMERAT ED(0, 1/8, 2/8, 3/8, 4/8, 5/8, 6/8, 7/8,	
			1)	

9.2.3.A Block STTD Indicator

Void.

9.2.3.1 Burst Type

Void.

### 9.2.3.1a Cell Capability Container TDD

The Cell Capability Container TDD indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Cell Capability Container TDD			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.  The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be imported by the reasoners.
				be ignored by the receiver.

# 9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container TDD LCR			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows.  The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

## 9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CCTrCH ID			INTEGER	
			(015)	

### 9.2.3.2A DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information		1 <maxno ofDCHs&gt;</maxno 			_	
>Payload CRC Presence Indicator	М		9.2.1.42		_	
>UL FP Mode	М		9.2.1.67		_	
>ToAWS	М		9.2.1.58		_	
>ToAWE	М		9.2.1.57		_	
>DCH Specific Info		1 <maxno ofDCHs&gt;</maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>CCTrCH ID	М		9.2.3.2	UL CCTrCH in which the DCH is mapped	-	
>>CCTrCH ID	М		9.2.3.2	DL CCTrCH in which the DCH is mapped	_	
>>TrCH Source Statistics Descriptor	М		9.2.1.65		_	
>>Transport Format Set	M		9.2.1.64	For the UL.	_	
>>Transport Format Set	M		9.2.1.64	For the DL.	_	
>>BLER	M		9.2.1.4	For the UL.	_	
>>BLER	M		9.2.1.4	For the DL.	_	
>>Allocation/Retention Priority	M		9.2.1.1		_	
>>Frame Handling Priority	M		9.2.1.29		_	
>>QE-Selector	C- CoorDCH		9.2.1.46A		_	
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>>Traffic Class	М		9.2.1.58A		YES	ignore
>>Unidirectional DCH Indicator	0		9.2.1.68B		YES	reject
>TNL QoS	0		9.2.1.56A		YES	ignore

Condition	Explanation
CoorDCH	The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the <i>DCH Specific Info</i> IE is greater than 1).

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

# 9.2.3.2B DCH TDD Information Response

Void

## 9.2.3.2C DL Timeslot Information

The DL Timeslot Information IE provides information on the time slot allocation for a DL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information		1 <maxno OfTS&gt;</maxno 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift And Burst Type	М		9.2.3.4		_	
>TFCI Presence	М		9.2.1.55		_	
>DL Code Information	М		TDD DL Code Information 9.2.3.8C		_	

Range bound	Explanation		
maxnoofTSs	Maximum number of Timeslots for a UE.		

## 9.2.3.2D DL Time Slot ISCP Info

The DL Time Slot ISCP Info IE gives interference level for each DL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Time Slot ISCP Info		1 <maxno ofDLts&gt;</maxno 			_	
>Time Slot	M		9.2.1.56		_	
>DL Timeslot ISCP	M		9.2.3.12		_	

Range bound	Explanation
maxnoofDLts	Maximum number of downlink time slots per Radio Link for
	3.84Mcps TDD.

# 9.2.3.2E DL Timeslot Information LCR

The DL Timeslot Information LCR IE provides information for DL Timeslot to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	Description		Officiality
DL Timeslot Information LCR		1 <maxnoof< th=""><th></th><th></th><th>_</th><th></th></maxnoof<>			_	
		DLtsLCR>				
>Time Slot LCR	М		9.2.3.12a		_	
>Midamble Shift LCR	M		9.2.3.4C		_	
>TFCI Presence	M		9.2.1.57		_	
>DL Code Information LCR	М		TDD DL Code Information LCR 9.2.3.8D		-	
>Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore

Range bound	Explanation
maxnoofDLtSLCR	Maximum number of Downlink time slots per Radio Link for
	1.28Mcps TDD.

### 9.2.3.2F DL Time Slot ISCP Info LCR

The DL *Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Time Slot ISCP Info LCR		1 <maxnooful tsLCR&gt;</maxnooful 			_	
>Time Slot LCR	M		9.2.3.12a		_	
>DL Timeslot ISCP	M		9.2.3.12		_	

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD

#### 9.2.3.3 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER	
			(0239)	

### 9.2.3.3a DSCH TDD Information

The DSCH TDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH TDD Information		1 <maxno ofDSCHs&gt;</maxno 			_	
>DSCH ID	M		9.2.1.26A		_	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	_	
>TrCH Source Statistics Descriptor	М		9.2.1.65		_	
>Transport Format Set	M		9.2.1.64		_	
>Allocation/Retention Priority	M		9.2.1.1		_	
>Scheduling Priority Indicator	М		9.2.1.51A		_	
>BLER	M		9.2.1.4		_	
>Traffic Class	M		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore

Range bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE.

## 9.2.3.3aa HS-DSCH TDD Information

The HS- $DSCH\ TDD\ Information\ IE$  is used for initial addition of HS-DSCH information to a UE Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS-DSCH MAC-d Flows Information	M		9.2.1.30OA	
UE Capabilities Information		1		
>HS-DSCH Physical Layer Category	М		9.2.1.30Oa	
MAC-hs Reordering Buffer Size for RLC-UM	М		9.2.1.34Ab	
TDD ACK NACK Power Offset	М		9.2.3.71	

# 9.2.3.3ab HS-DSCH TDD Information Response

The *HS-DSCH TDD Information Response* IE provides information for HS-DSCH that have been established or modified. It also provides additional HS-DSCH information determined within the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		0 <maxno ofMACdFl</maxno 			_	
Response >HS-DSCH MAC-d Flow ID	M	OWS>	0.04.000			
	O		9.2.1.30O 9.2.1.3		_	
>Binding ID	0		9.2.1.62			
>Transport Layer Address >HS-DSCH Initial Capacity	0		9.2.1.62 9.2.1.30Na		_	
Allocation	0		9.2.1.30Na		_	
HS-SCCH Specific		0 <maxno< td=""><td></td><td>Not</td><td>GLOBAL</td><td>reject</td></maxno<>		Not	GLOBAL	reject
Information Response		ofHSSCC Hcodes>		applicable to 1.28 Mcps TDD	GLOBAL	reject
>Time Slot	M		9.2.1.56		_	
>Midamble Shift And Burst Type	М		9.2.3.4		_	
>TDD Channelisation Code	M		9.2.3.8		_	
>HS-SICH Information		1			_	
>>HS SICH ID	М		9.2.3.3ad		_	
>>Time Slot	М		9.2.1.56		_	
>>Midamble Shift And Burst Type	М		9.2.3.4		_	
>>TDD Channelisation Code	М		9.2.3.8		_	
HS-SCCH Specific Information Response LCR		0 <maxno ofHSSCC Hcodes&gt;</maxno 		Not applicable to 3.84 Mcps TDD	GLOBAL	reject
>Time Slot LCR	M		9.2.3.12a		_	
>Midamble shift LCR	M		9.2.3.4C		_	
>First TDD Channelisation Code	M		TDD Channelisa tion Code 9.2.3.8		_	
>Second TDD Channelisation Code	M		TDD Channelisa tion Code 9.2.3.8		_	
>HS-SICH Information LCR		1			_	
>>HS SICH ID	M		9.2.3.3ad		_	
>>Time Slot LCR	M		9.2.3.12a		_	
>>Midamble shift LCR	M		9.2.3.4C		_	
>>TDD Channelisation Code	М		9.2.3.8		_	
HS-PDSCH Timeslot Specific Information Response		0 <maxno ofDLts&gt;</maxno 		Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.1.56		_	
>Midamble Shift And Burst Type	М		9.2.3.4		_	
HS-PDSCH Timeslot Specific Information Response LCR		0 <maxno ofDLtsLCR &gt;</maxno 		Not Applicable to 3.84Mcps TDD.	GLOBAL	reject
>Time Slot LCR	М		9.2.3.12a		_	
>Midamble Shift LCR	M	ļ	9.2.3.4C		_	
CHOICE HARQ Memory Partitioning	0				-	
>Implicit					_	
>>Number of Processes	M		INTEGER (18)	For HARQ process IDs going from 0 to 'Number of	_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			Reference	Processes' –  1 the Total number of soft channel bits [42] is partitioned equally between all HARQ processes according to the rules in [16].		
>Explicit				[].	_	
>>HARQ Memory Partitioning Information		1 <maxno ofHARQpr ocesses&gt;</maxno 		The first instance of the parameter corresponds to HARQ process with identifier 0, the second instance to HARQ process with identifier 1, and so on.	_	
>>>Process Memory Size	М		9.2.1.45B	See [16]	_	

Range bound	Explanation
maxnoofMACdFlows	Maximum number of MAC-d flows.
maxnoofHSSCCHcodes	Maximum number of HS-SCCH codes.
maxnoofDLts	Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD.
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.
maxnoofHARQprocesses	Maximum number of HARQ processes.

# 9.2.3.3ac HS-DSCH TDD Update Information

The *HS-DSCH TDD Update Information* IE provides information for HS-DSCH to be updated. At least one IE shall be presented.

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
HS-SCCH Code Change Indicator	0		9.2.1.30R		1	
TDD ACK NACK Power Offset	0		9.2.3.71		_	

### 9.2.3.3ad HS-SICH ID

The HS-SICH ID identifies unambiguously a HS-SICH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HS SICH ID			INTEGER (031)	

#### 9.2.3.3A Maximum Number of Timeslots

Defines the maximum number of timeslots the UE has the capability of receiving or transmitting. [3.84Mcps TDD – in a frame] [1.28Mcps TDD – in a subframe]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of			INTEGER	For 1.28Mcps TDD the values 7
Timeslots			(114)	through 14 are not used.

### 9.2.3.3B Maximum Number of UL Physical Channels per Timeslot

Defines the maximum number of physical channels  $[3.84Mcps\ TDD-per\ frame]\ [1.28Mcps\ TDD-per\ subframe]$  that the UE is capable to transmit.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of UL			INTEGER	
Physical Channels per			(12)	
Timeslot				

### 9.2.3.3C Maximum Number of DL Physical Channels

Defines the maximum number of physical channels [3.84Mcps TDD – per frame] [1.28Mcps TDD – per subframe] that the UE is capable to receive.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of DL Physical Channels			INTEGER (1224)	For 1.28Mcps TDD the values 97 through 224 are not used.
Physical Channels			(1224)	97 through 224 are not u

#### 9.2.3.3D Maximum Number of DL Physical Channels per Timeslot

Defines the maximum number of physical channels per timeslot that the UE is capable to receive.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Number of DL			INTEGER	
Physical Channels per			(116)	
Timeslot				

### 9.2.3.4 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL):
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Burst Type				
>Type 1				
>> Midamble Configuration Burst Type 1 And 3	M		ENUMERATED(4, 8, 16)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Defa ult midamble, Common midamble, UE specific midamble)	
>>Midamble Shift Long	C-UE		INTEGER(015)	
>Type 2				
>> Midamble Configuration Burst Type 2	M		ENUMERATED (3, 6)	As defined in [12]
>>Midamble Allocation Mode	M		ENUMERATED(Defa ult midamble, Common midamble, UE specific midamble)	
>>Midamble Shift Short	C-UE		INTEGER (015)	
>Type 3				UL only
>> Midamble Configuration Burst Type 1 And 3	M		ENUMERATED (4, 8, 16)	As defined in [12]
>>Midamble Allocation Mode	М		ENUMERATED(Defa ult midamble, UE specific midamble)	
>>Midamble Shift Long	C-UE		INTEGER(015)	

Condition	Explanation
UE	The IE shall be present if the Midamble Allocation
	Mode IF is set to "UF-specific midamble"

# 9.2.3.4A Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading			INTEGER	
Factor			(116)	

## 9.2.3.4B IPDL TDD parameters

The IPDL TDD Parameters IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP Spacing TDD	М		ENUMERAT ED(30,40,50 , 70, 100,)	See [22]
IP Start	M		INTEGER(04095)	See [22]
IP Slot	M		INTEGER(014)	See [22]
IP P-CCPCH	M		ENUMERAT ED(Switch off 1 frame, Switch off 2 frames)	See [22]
Burst mode parameters	0		9.2.1.4B	

## 9.2.3.4Bb IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP Spacing TDD	M		ENUMERAT ED(30,40,50 , 70, 100,)	See [22]
IP Start	M		INTEGER(04095)	See [22]
IP_Sub	М		ENUMERAT ED(First,Sec ond,Both)	See [22]
Burst mode parameters	0		9.2.1.4B	

### 9.2.3.4C Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

IE/Group name	Presence	Range	IE Type and	Semantics Description
			Reference	
Midamble Allocation Mode	M		ENUMERAT	
			ED(Default	
			midamble,	
			Common	
			midamble,	
			UE specific	
			midamble,)	
Midamble Shift Long	C-UE		INTEGER(0.	
_			.15)	
Midamble Configuration LCR	M		ENUMERAT	As defined in [12]
_			ED (2, 4, 6,	
			8, 10, 12, 14,	
			16,)	

Condition	Explanation
UE	The IE shall be present if the Midamble Allocation
	Mode IE is set to "UE-specific midamble".

## 9.2.3.4D Neighbouring TDD Cell Information LCR

Void

# 9.2.3.5 Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP			INTEGER(	According to mapping of the
			091)	non-negative values in ref.
				[24].

## 9.2.3.5a Primary CCPCH RSCP Delta

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CCPCH RSCP Delta			INTEGER( -51,)	If present, the actual value of Primary CCPCH RSCP =
				Primary CCPCH RSCP Delta

#### 9.2.3.5A PRACH Midamble

Void.

### 9.2.3.5B RB Identity

The RB Identity is the identifier of a radio bearer. It is unique for each active Radio bearer among the active radio bearers simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RB Identity			INTEGER (031)	In line with [16], ch. 10.3.4.11

## 9.2.3.6 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Length			INTEGER(163	

## 9.2.3.7 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J, it is assigned to the same physical channel also in all the Radio Frames J+n\*Repetition Period (where n is an integer) see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Period			ENUMERATED	
			(1,2,4,8,16,32,6	
			4)	

### 9.2.3.7A Rx Timing Deviation

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. For 1.28Mcps TDD this IE must be set to 0.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Rx Timing Deviation			INTEGER	As specified in [5], ch.
			(0127)	6.2.7.6

## 9.2.3.7B Secondary CCPCH Info TDD

The Secondary CCPCH Info TDD IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and	Description		Criticality
			Reference			
TFCS	M		9.2.1.63	For the DL.	_	
TFCI Coding	M		9.2.3.11		_	
Secondary CCPCH		0 <maxno ofSCCPC Hs&gt;</maxno 			_	
>Time Slot	М		9.2.1.56		_	
>Midamble Shift And Burst Type	М		9.2.3.4		_	
>TFCI Presence	M		9.2.1.55		_	
> Secondary CCPCH TDD Code Information	М		9.2.3.7C		_	
>TDD Physical Channel Offset	М		9.2.3.9			
>Repetition Length	M		9.2.3.6		_	
>Repetition Period	M		9.2.3.7		_	
FACH		0maxnoo fFACHs			_	
> TFS	M		9.2.1.64	For the DL.	_	
PCH		01			_	
> TFS	М		9.2.1.64	For the DL.	_	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH.
maxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

## 9.2.3.7C Secondary CCPCH TDD Code Information

The Secondary CCPCH TDD Code Information IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information		1 <maxno OfSCCPC Hs&gt;</maxno 			-	
>TDD Channelisation Code	М		9.2.3.8		_	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.

## 9.2.3.7D Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Special Burst Scheduling			INTEGER(1,	Number of frames between
-			2,, 256)	special burst transmissions
				during DTX

### 9.2.3.7E Synchronisation Configuration

The Synchronisation Configuration parameters that are used by the DRNS in the Radio Link Failure/Restore procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_INSYNC_IND	M		INTEGER(1,	
			2,, 256)	
N_OUTSYNC_IND	M		INTEGER(1,	
			2,, 256)	
T_RLFAILURE	M		ENUMERAT	Unit: seconds
			ED(0, 0.1,	
			0.2, 25.5)	

## 9.2.3.7F Secondary CCPCH Info TDD LCR

The Secondary CCPCH Info TDD LCR IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TFCS	М		9.2.1.63	For the DL.	_	
TFCI Coding	М		9.2.3.11		_	
Secondary CCPCH		0 <maxno ofSCCPC Hs&gt;</maxno 			-	
>Time Slot LCR	М		9.2.3.12a		_	
>Midamble Shift LCR	М		9.2.3.4C		_	
>TFCI Presence	М		9.2.1.55		_	
> Secondary CCPCH TDD Code Information LCR	M		9.2.3.7G		_	
>TDD Physical Channel Offset	M		9.2.3.9			
>Repetition Length	М		9.2.3.6		_	
>Repetition Period	М		9.2.3.7		_	
FACH		0 <maxno ofFACHs&gt;</maxno 			_	
> TFS	M		9.2.1.64	For the DL.	_	
PCH		01			_	
> TFS	М		9.2.1.64	For the DL.	_	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH.
maxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

# 9.2.3.7G Secondary CCPCH TDD Code Information LCR

The *Secondary CCPCH TDD Code Information LCR* IE provides LCR TDD Channelisation Code information for all SCCPCHs of one Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information		1 <maxno OfSCCPC Hs&gt;</maxno 			-	
>TDD Channelisation Code LCR	М		9.2.3.8a		_	
>SCCPCH Time Slot Format LCR	М		TDD DL DPCH Time Slot Format LCR 9.2.3.8E		-	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.

# 9.2.3.7H Support of 8PSK

The Support of 8PSK IE indicates whether 8PSK is supported or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Support of 8PSK			ENUMERAT	
			ED(supported	
			)	

#### 9.2.3.7I TDD ACK NACK Power Offset

The *TDD ACK NACK Power Offset* IE indicates Power offset used in the UL in the HS-SICH between transmissions carrying positive and negative acknowledgements as per [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD ACK NACK Power			INTEGER (-	Unit: dB
Offset			78,)	Range: -7+8 dB
				Step: 1 dB

#### 9.2.3.8 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1), (4/4), (8/1), (8/8), (16/1), (16/16),)	

#### 9.2.3.8a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code	M		ENUMERAT	
			ED((1/1),	
			(2/1), (2/2),	
			(4/1),(4/4),	
			(8/1), (8/8),	
			(16/1)	
			(16/16) ,)	
Modulation	M		ENUMERAT	Modulation options for
			ED(QPSK,	1.28Mcps TDD in contrast to
			8PSK,)	3.84Mcps TDD

#### 9.2.3.8A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The *Offset Type* IE = "No Initial Offset" is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The *Offset Type* IE = "Initial Offset" is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offset for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [16].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
CHOICE Offset Type				
>Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER	
			(0255)	
>No Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER	
			(063)	

# 9.2.3.8B TDD DCHs To Modify

The  $TDD\ DCHs\ To\ Modify\ IE$  provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DCHs To Modify		1 <maxno ofDCHs&gt;</maxno 			_	
>UL FP Mode	0		9.2.1.67		_	
>ToAWS	0		9.2.1.58		_	
>ToAWE	0		9.2.1.57		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>DCH Specific Info		1 <maxno ofDCHs&gt;</maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>CCTrCH ID	0		9.2.3.2	UL CCTrCH in which the DCH is mapped.	_	
>>CCTrCH ID	0		9.2.3.2	DL CCTrCH in which the DCH is mapped	-	
>>Transport Format Set	0		9.2.1.64	For the UL.	_	
>>Transport Format Set	0		9.2.1.64	For the DL.	_	
>>Allocation/Retention Priority	0		9.2.1.1		_	
>>Frame Handling Priority	0		9.2.1.29			
>>Traffic Class	0		9.2.1.58A		YES	ignore
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>TNL QoS	0		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

## 9.2.3.8C TDD DL Code Information

The TDD DL Code Information IE provides TDD DL Code information for all DPCHs of one DL Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DL Code Information		1 <maxno OfDPCHs</maxno 			_	
		>				
>DPCH ID	M		9.2.3.3		_	
>TDD Channelisation Code	М		9.2.3.8		_	

Range bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.

### 9.2.3.8D TDD DL Code Information LCR

The TDD DL Code Information LCR IE provides DL Code information for the RL for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DL Code Information		1			_	
LCR		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
		DPCHLCR				
		>				
>DPCH ID	M		9.2.3.5		_	
>TDD Channelisation	M		9.2.3.8a		_	
Code LCR						
> TDD DL DPCH Time Slot	М		9.2.3.8E		_	
Format LCR						

Range bound	Explanation		
maxnoOfDPCHLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD		

#### 9.2.3.8E TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [12]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Modulation				
> QPSK				
>>QPSK TDD DL DPCH	М		INTEGER	
TimeSlot Format LCR			(024,)	
> 8PSK				
>>8PSK TDD DL DPCH	М		INTEGER	
TimeSlot Format LCR			(024,)	

### 9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a non DPCH physical channel. (CFN mod Repetition Period = TDD Physical Channel Offset) see ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Physical Channel			INTEGER	
Offset			(063)	

## 9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment (see ref [22]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Downlink Step			ENUMERAT	Unit: dB
Size			ED(1, 2,	
			3,)	

# 9.2.3.10a TDD TPC Uplink Step Size

This parameter indicates step size for the UL power adjustment (see ref [22]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Uplink Step Size			ENUMERAT ED (1, 2, 3,)	Unit: dB

### 9.2.3.10A TDD UL Code Information

The TDD UL Code Information IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information		1 <maxno OfDPCHs</maxno 			_	
		>				
>DPCH ID	M		9.2.3.3		_	
>TDD Channelisation Code	M		9.2.3.8		_	

Range bound	Explanation		
maxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.		

### 9.2.3.10B TDD UL Code Information LCR

The TDD UL Code Information LCR IE provides information for UL Code to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information LCR		1 <maxno OfDPCH LCR&gt;</maxno 			_	
>DPCH ID	M		9.2.3.5		-	
>TDD Channelisation Code LCR	М		9.2.3.8a		-	
> TDD UL DPCH Time Slot Format LCR	M		9.2.3.10C		_	

Range bound	Explanation		
maxnoOfDPCHLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD.		

### 9.2.3.10C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [12]).

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
CHOICE Modulation				
> QPSK				
>>QPSK TDD UL DPCH	M		INTEGER	
Time Slot Format LCR			(069,)	
> 8PSK				
>>8PSK TDD UL DPCH	M		INTEGER	
Time Slot Format LCR			(024,)	

## 9.2.3.11 TFCI Coding

The TFCI Coding describes how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Coding			ENUMERATE	
_			D(4, 8, 16,	
			32,)	

#### 9.2.3.12 DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot ISCP			INTEGER(	According to mapping in [24].
			091)	

#### 9.2.3.12a Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR			INTEGER	
			(06)	

### 9.2.3.12A Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timing Advance Applied			ENUMERAT ED(Yes, No)	
			ED(165, NO)	

### 9.2.3.13 Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Transport Format			ENUMERAT	
Management			ED(Cell	
			Based, UE	
			Based,)	

#### 9.2.3.13A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the DRNS, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot ISCP			INTEGER(	According to mapping in [24].
			0127)	

## 9.2.3.13B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL PhysCH SF Variation			ENUMERAT	
			ED(SF_Vari	
			ation_suppor	
			ted,	
			SF_Variation	
			_NOT_supp	
			orted)	

### 9.2.3.13C UL Timeslot Information

The UL Timeslot Information IE provides information on the time slot allocation for a UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information		1 <maxno OfTS&gt;</maxno 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift And Burst Type	М		9.2.3.4		_	
>TFCI Presence	M		9.2.1.55		_	
>UL Code Information	M		TDD UL Code Information 9.2.3.10A		-	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE.

### 9.2.3.13D UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE gives interference level for each UL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Time Slot ISCP Info		1			_	
		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
		ULts>				
>Time Slot	M		9.2.1.56		_	
>UL Timeslot ISCP	M		9.2.3.13A		_	

Range bound	Explanation
maxnoofULts	Maximum number of uplink time slots per Radio Link.

## 9.2.3.13E TSTD Indicator

Indicates if TSTD shall be active or not for the DL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Indicator			ENUMERAT	
			ED(active,	
			inactive)	

## 9.2.3.13F TSTD Support Indicator

Indicates if UE support TSTD or not for DL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Support Indicator			ENUMERAT ED(TSTD supported, TSTD not supported)	

### 9.2.3.13G UL Timeslot Information LCR

The  $UL\ Timeslot\ Information\ LCR\ IE\ provides\ information\ on\ the\ timeslot\ allocation\ for\ an\ UL\ DPCH.$ 

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Timeslot Information LCR		1 <maxn oofULts LCR&gt;</maxn 			_	
>Time Slot LCR	М		9.2.3.12a		_	
>Midamble Shift LCR	M		9.2.3.4C		_	
>TFCI Presence	M		9.2.1.57		_	
>UL Code Information LCR	M		TDD UL Code Information LCR 9.2.3.10B			

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD.

### 9.2.3.13H UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UL Time Slot ISCP Info		1 <maxnooful tsLCR&gt;</maxnooful 			1	
>Time Slot LCR	M		9.2.3.12a		_	
>UL Timeslot ISCP	M		9.2.3.26A		_	

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD

## 9.2.3.13I Uplink Synchronisation Frequency

The UL Synchronisation Frequency IE specifies the frequency of the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink synchronisation frequency			INTEGER (18)	Unit: subframe, step: 1

## 9.2.3.13J Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink synchronisation step			INTEGER (18)	Unit: 1/8 chip, step: 1.
size				

## 9.2.3.13K Uplink Timing Advance Control LCR

The Uplink Timing Advance Control LCR indicates the parameters which are used to support Uplink Synchronisation for the UE in 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SYNC UL codes bitmap	М		BITSTRING (8)	Each bit indicates the availability of a SYNC_UL code.
FPACH info		1		
>Time Slot LCR	M		9.2.3.12a	
>TDD Channelisation Code LCR	М		9.2.3.8a	
>Midamble Shift LCR	M		9.2.3.4C	
>WT	М		INTEGER (14)	Maximum number of subframes to wait for transmission of FPACH.
PRXupPCHdes	M		INTEGER (-120 – 58,)	Desired UpPCH receive power. Unit: dBm Step size: 1
SYNC UL procedure parameters		1		
>Maximum Sync UL transmissions	M		ENUMERATED (1,2,4,8,)	
>Power Ramp Step	M		INTEGER (03,)	
Mmax	М		INTEGER (132)	Maximum number of synchronisation attempts

## 9.2.3.14 USCH ID

The USCH ID is the identifier of an uplink shared channel. It is unique among the USCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH ID			INTEGER	
			(0255)	

## 9.2.3.15 USCH Information

The  $\mathit{USCH}$   $\mathit{Information}$  IE provides information for USCHs to be established.

IE/Group Name	Presenc e	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
USCH Information		1 to <maxnoofu SCHs&gt;</maxnoofu 			-	
>USCH ID	M		9.2.3.14		_	
>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the USCH is mapped	ı	
>TrCH Source Statistics Descriptor	М		9.2.1.65		-	
>Transport Format Set	М		9.2.1.64	For USCH	_	
>Allocation/Retention Priority	M		9.2.1.1			
>Scheduling Priority Indicator	М		9.2.1.51A		_	
>BLER	М		9.2.1.4			
>RB Info		1 <maxnoof RB&gt;</maxnoof 		All Radio Bearers using this USCH	-	
>>RB Identity	M		9.2.3.5B		_	
>Traffic class	M		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>TNL QoS	0		9.2.1.56A		YES	ignore

Range bound	Explanation
maxnoofUSCHs	Maximum number of USCHs for one UE.
maxnoofRBs	Maximum number of Radio Bearers for one UE.

# 9.3 Message and Information Element Abstract Syntax (with ASN.1)

### 9.3.0 General

Subclause 9.3 presents the Abstract Syntax of RNSAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclause 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, in which the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of RNSAP messages. RNSAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a RNSAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list in which the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a RNSAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

# 9.3.1 Usage of Private Message Mechanism for Non-standard Use

The private message mechanism for non-standard use may be used:

- for special operator (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multivendor inter-operability.
- by vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation.

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

# 9.3.2 Elementary Procedure Definitions

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Descriptions (0) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
  *****************
-- IE parameter types from other modules.
__ *********************
IMPORTS
   Criticality,
   ProcedureID,
   TransactionID
FROM RNSAP-CommonDataTypes
    CommonMeasurementFailureIndication,
    CommonMeasurementInitiationFailure,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementReport,
   CommonMeasurementTerminationRequest,
    CommonTransportChannelResourcesFailure,
   CommonTransportChannelResourcesRequest,
   CommonTransportChannelResourcesReleaseRequest,
    CommonTransportChannelResourcesResponseFDD,
    CommonTransportChannelResourcesResponseTDD,
    CompressedModeCommand,
   DedicatedMeasurementFailureIndication,
   DedicatedMeasurementInitiationFailure,
   DedicatedMeasurementInitiationRequest,
   DedicatedMeasurementInitiationResponse,
   DedicatedMeasurementReport,
   DedicatedMeasurementTerminationRequest,
   DL-PowerControlRequest,
   DL-PowerTimeslotControlRequest,
   DownlinkSignallingTransferRequest,
    ErrorIndication,
    InformationExchangeFailureIndication,
    InformationExchangeInitiationFailure,
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeTerminationRequest,
    InformationReport,
    PagingRequest,
    PhysicalChannelReconfigurationCommand,
    PhysicalChannelReconfigurationFailure,
    PhysicalChannelReconfigurationRequestFDD,
    PhysicalChannelReconfigurationRequestTDD,
    PrivateMessage,
    RadioLinkActivationCommandFDD,
```

```
RadioLinkActivationCommandTDD,
    RadioLinkAdditionFailureFDD.
    RadioLinkAdditionFailureTDD.
    RadioLinkAdditionRequestFDD,
    RadioLinkAdditionRequestTDD,
    RadioLinkAdditionResponseFDD,
    RadioLinkAdditionResponseTDD,
    RadioLinkCongestionIndication.
    RadioLinkDeletionRequest,
    RadioLinkDeletionResponse,
    RadioLinkFailureIndication,
    RadioLinkParameterUpdateIndicationFDD,
    RadioLinkParameterUpdateIndicationTDD,
    RadioLinkPreemptionRequiredIndication,
    RadioLinkReconfigurationCancel,
    RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationFailure,
    RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
    RadioLinkReconfigurationReadyFDD,
    RadioLinkReconfigurationReadyTDD,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponseFDD,
    RadioLinkReconfigurationResponseTDD,
    RadioLinkRestoreIndication,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
    RelocationCommit,
    ResetRequest,
    ResetResponse,
    UplinkSignallingTransferIndicationFDD,
    UplinkSignallingTransferIndicationTDD,
    GERANUplinkSignallingTransferIndication
FROM RNSAP-PDU-Contents
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReporting,
    id-commonMeasurementTermination,
    id-commonTransportChannelResourcesInitialisation,
    id-commonTransportChannelResourcesRelease,
    id-compressedModeCommand,
    id-downlinkPowerControl,
    id-downlinkSignallingTransfer,
    id-downlinkPowerTimeslotControl,
    id-errorIndication,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
```

```
id-informationExchangeTermination,
   id-dedicatedMeasurementFailure.
   id-dedicatedMeasurementInitiation.
   id-dedicatedMeasurementReporting,
   id-dedicatedMeasurementTermination,
   id-paging,
   id-physicalChannelReconfiguration,
    id-privateMessage,
   id-radioLinkActivation,
   id-radioLinkAddition,
   id-radioLinkCongestion,
   id-radioLinkDeletion,
   id-radioLinkFailure,
   id-radioLinkParameterUpdate,
   id-radioLinkPreemption,
   id-radioLinkRestoration,
   id-radioLinkSetup,
   id-relocationCommit,
   id-reset,
   id-synchronisedRadioLinkReconfigurationCancellation,
   id-synchronisedRadioLinkReconfigurationCommit,
   id-synchronisedRadioLinkReconfigurationPreparation,
   id-unSynchronisedRadioLinkReconfiguration,
   id-uplinkSignallingTransfer,
    id-gERANuplinkSignallingTransfer
FROM RNSAP-Constants;
      ************
-- Interface Elementary Procedure Class
  *****************
RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
   &InitiatingMessage
   &SuccessfulOutcome
                                  OPTIONAL,
    &UnsuccessfulOutcome
                                      OPTIONAL,
    &Outcome
                              OPTIONAL,
   &procedureID
                          ProcedureID
                                         UNIQUE,
   &criticality
                          Criticality
                                         DEFAULT ignore
WITH SYNTAX {
   INITIATING MESSAGE
                          &InitiatingMessage
                          &SuccessfulOutcomel
    [SUCCESSFUL OUTCOME
    [UNSUCCESSFUL OUTCOME
                              &UnsuccessfulOutcomel
    [ OUTCOME
                      &Outcome1
    PROCEDURE ID
                          &procedureID
    [CRITICALITY
                          &criticality]
-- Interface PDU Definition
```

```
__ *********************
RNSAP-PDU ::= CHOICE {
    initiatingMessage
                      InitiatingMessage,
    successfulOut.come
                      SuccessfulOutcome.
    unsuccessfulOutcome UnsuccessfulOutcome,
    outcome
                   Outcome,
    . . .
InitiatingMessage ::= SEQUENCE
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
    transactionID TransactionID,
    value
               RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage
                                                               ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
SuccessfulOutcome ::= SEOUENCE
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}),
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
    transactionID TransactionID,
                                                               ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
               RNSAP-ELEMENTARY-PROCEDURE. & Successful Outcome
UnsuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID TransactionID,
               RNSAP-ELEMENTARY-PROCEDURE. &UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
Outcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
                                                           ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID TransactionID,
                                                       ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
               RNSAP-ELEMENTARY-PROCEDURE. &Outcome
-- Interface Elementary Procedure List
RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-1
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-2
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-3
RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
    radioLinkSetupFDD
    radioLinkSetupTDD
```

```
radioLinkAdditionFDD
    radioLinkAdditionTDD
    radioLinkDeletion
    synchronisedRadioLinkReconfigurationPreparationFDD
    synchronisedRadioLinkReconfigurationPreparationTDD
    unSynchronisedRadioLinkReconfigurationFDD
    unSynchronisedRadioLinkReconfigurationTDD
    physicalChannelReconfigurationFDD
    physicalChannelReconfigurationTDD
    dedicatedMeasurementInitiation
    commonTransportChannelResourcesInitialisationFDD
    commonTransportChannelResourcesInitialisationTDD
    commonMeasurementInitiation
    informationExchangeInitiation
    reset
RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
    uplinkSignallingTransferFDD
    uplinkSignallingTransferTDD
    downlinkSignallingTransfer
    relocationCommit
    paging
    synchronisedRadioLinkReconfigurationCommit
    synchronisedRadioLinkReconfigurationCancellation
    radioLinkFailure
    radioLinkPreemption
    radioLinkRestoration
    dedicatedMeasurementReporting
    dedicatedMeasurementTermination
    dedicatedMeasurementFailure
    downlinkPowerControlFDD
    downlinkPowerTimeslotControl
    compressedModeCommandFDD
    commonTransportChannelResourcesRelease
    errorIndication
    privateMessage
    radioLinkCongestion
    commonMeasurementFailure
    commonMeasurementReporting
    commonMeasurementTermination
    informationExchangeFailure
    informationExchangeTermination
    informationReporting
    radioLinkActivationFDD
    radioLinkActivationTDD
    gERANuplinkSignallingTransfer
    radioLinkParameterUpdateFDD
    radioLinkParameterUpdateTDD
RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
```

```
-- Interface Elementary Procedures
__ *********************
radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkSetupRequestFDD
   SUCCESSFUL OUTCOME RadioLinkSetupResponseFDD
   UNSUCCESSFUL OUTCOME
                          RadioLinkSetupFailureFDD
   PROCEDURE ID
                      { procedureCode id-radioLinkSetup, ddMode fdd }
   CRITICALITY
                  reject
radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE RadioLinkSetupRequestTDD
   SUCCESSFUL OUTCOME RadioLinkSetupResponseTDD
   UNSUCCESSFUL OUTCOME RadioLinkSetupFailureTDD
                      { procedureCode id-radioLinkSetup, ddMode tdd }
   PROCEDURE ID
   CRITICALITY
                  reject
radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkAdditionRequestFDD
   SUCCESSFUL OUTCOME RadioLinkAdditionResponseFDD
   UNSUCCESSFUL OUTCOME
                         RadioLinkAdditionFailureFDD
                      { procedureCode id-radioLinkAddition , ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                  reject
radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkAdditionRequestTDD
   SUCCESSFUL OUTCOME RadioLinkAdditionResponseTDD
   UNSUCCESSFUL OUTCOME
                        RadioLinkAdditionFailureTDD
                      { procedureCode id-radioLinkAddition , ddMode tdd }
   PROCEDURE ID
   CRITICALITY
                  reject
radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
   INITIATING MESSAGE RadioLinkDeletionRequest
   SUCCESSFUL OUTCOME RadioLinkDeletionResponse
                      { procedureCode id-radioLinkDeletion, ddMode common }
   PROCEDURE ID
   CRITICALITY
                  reject
synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyFDD
   UNSUCCESSFUL OUTCOME
                          RadioLinkReconfigurationFailure
    PROCEDURE ID
                      { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
   CRITICALITY
                  reject
```

```
synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyTDD
                           RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseFDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkReconfigurationFailure
                        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseTDD
                           RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
                           PhysicalChannelReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                   reject
physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
                           PhysicalChannelReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
dedicatedMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME DedicatedMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME
                           DedicatedMeasurementInitiationFailure
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY
                    reject
commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseFDD
                           CommonTransportChannelResourcesFailure
    UNSUCCESSFUL OUTCOME
```

```
{ procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseTDD
    UNSUCCESSFUL OUTCOME
                           CommonTransportChannelResourcesFailure
    PROCEDURE ID
                        { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode tdd }
    CRITICALITY
                    reject
uplinkSignallingTransferFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationFDD
                        { procedureCode id-uplinkSignallingTransfer, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    ignore
uplinkSignallingTransferTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationTDD
    PROCEDURE ID
                        { procedureCode id-uplinkSignallingTransfer, ddMode tdd }
    CRITICALITY
                    ignore
downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE DownlinkSignallingTransferRequest
                        { procedureCode id-downlinkSignallingTransfer, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RelocationCommit
    PROCEDURE ID
                        { procedureCode id-relocationCommit, ddMode common }
    CRITICALITY
                    ignore
paging RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PagingRequest
                        { procedureCode id-paging, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCommit
                        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCancel
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY
                    ignore
```

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```
radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkFailureIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkPreemption RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkPreemptionRequiredIndication
                        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY
                    ignore
radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkRestoreIndication
                        { procedureCode id-radioLinkRestoration, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
dedicatedMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementReport
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    CRITICALITY
                    ignore
dedicatedMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementTerminationRequest
                        { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
dedicatedMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementFailureIndication
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkCongestionIndication
                        { procedureCode id-radioLinkCongestion, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerControlRequest
                        { procedureCode id-downlinkPowerControl, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    ignore
downlinkPowerTimeslotControl RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerTimeslotControlRequest
                        { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    ignore
```

```
compressedModeCommandFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CompressedModeCommand
    PROCEDURE ID
                        { procedureCode id-compressedModeCommand, ddMode fdd }
    CRITICALITY
                    ignore
commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesReleaseRequest
    PROCEDURE ID
                        { procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    CRITICALITY
                    ignore
errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE ErrorIndication
                        { procedureCode id-errorIndication, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME
                            CommonMeasurementInitiationResponse
                            CommonMeasurementInitiationFailure
    UNSUCCESSFUL OUTCOME
    PROCEDURE ID
                            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY
                            reject
commonMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementReport
    PROCEDURE ID
                        { procedureCode id-commonMeasurementReporting, ddMode common }
    CRITICALITY
                        ignore
commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementTerminationRequest
                        { procedureCode id-commonMeasurementTermination, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementFailureIndication
                        { procedureCode id-commonMeasurementFailure, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeInitiationRequest
    SUCCESSFUL OUTCOME
                            InformationExchangeInitiationResponse
    UNSUCCESSFUL OUTCOME
                            InformationExchangeInitiationFailure
                            { procedureCode id-informationExchangeInitiation, ddMode common
    PROCEDURE ID
    CRITICALITY
                            reject
informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationReport
```

```
{ procedureCode id-informationReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeTerminationRequest
    INITIATING MESSAGE
                            { procedureCode id-informationExchangeTermination, ddMode common }
    PROCEDURE ID
    CRITICALITY
informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeFailureIndication
    PROCEDURE ID
                             procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY
                            ignore
privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PrivateMessage
    PROCEDURE ID
                        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY
                    ignore
reset RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ResetRequest
    SUCCESSFUL OUTCOME
                            ResetResponse
    PROCEDURE ID
                            { procedureCode id-reset, ddMode common }
    CRITICALITY
                            reject
radioLinkActivationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkActivationCommandFDD
                             procedureCode id-radioLinkActivation, ddMode fdd
    PROCEDURE ID
    CRITICALITY
                            ignore
radioLinkActivationTDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE
                            RadioLinkActivationCommandTDD
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY
gERANuplinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE GERANUplinkSignallingTransferIndication
                        { procedureCode id-qERANuplinkSignallingTransfer, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
radioLinkParameterUpdateFDD RNSAP-ELEMENTARY-PROCEDURE ::=
                            RadioLinkParameterUpdateIndicationFDD
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-radioLinkParameterUpdate, ddMode fdd }
    CRITICALITY
                            ignore
```

## 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,
   AllowedOueuingTime,
   Allowed-Rate-Information,
   AlphaValue,
   AntennaColocationIndicator,
   BLER,
   SCTD-Indicator,
   BindingID,
   C-ID,
   C-RNTI,
   CCTrCH-ID,
   CFN,
   ClosedLoopModel-SupportIndicator,
   ClosedLoopMode2-SupportIndicator,
   Closedlooptimingadjustmentmode,
   CN-CS-DomainIdentifier,
   CN-PS-DomainIdentifier,
   CNDomainType,
   Cause,
   CellCapabilityContainer-FDD,
   CellCapabilityContainer-TDD,
```

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

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

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

```
STTD-SupportIndicator,
AdjustmentPeriod,
ScaledAdjustmentRatio,
MaxAdjustmentStep,
SecondaryCCPCH-SlotFormat,
SRB-Delay,
Support-8PSK,
SyncCase,
SynchronisationConfiguration,
TDD-ChannelisationCode,
TDD-DCHs-to-Modify,
TDD-DL-Code-Information,
TDD-DPCHOffset.
TDD-PhysicalChannelOffset,
TDD-TPC-DownlinkStepSize,
TDD-ChannelisationCodeLCR,
TDD-DL-Code-LCR-Information,
TDD-UL-Code-Information,
TDD-UL-Code-LCR-Information,
TFCI-Coding,
TFCI-PC-SupportIndicator,
TFCI-Presence,
TFCI-SignallingMode,
TimeSlot,
TimeSlotLCR,
TimingAdvanceApplied,
TnlOos,
ToAWE,
ToAWS,
TrafficClass,
TransmitDiversityIndicator,
TransportBearerID,
TransportBearerRequestIndicator,
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,
    PrimaryCCPCH-RSCP-Delta
FROM RNSAP-IEs
    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-ContainerList{},
    ProtocolIE-ContainerPair(),
    ProtocolIE-ContainerPairList{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers
    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfCCTrCHs,
    maxNrOfDCHs,
    maxNrOfTS,
    maxNrOfDPCHs,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLSets-1,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfULTs,
    maxNrOfDLTs,
    maxResetContext,
    maxResetContextGroup,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR,
    maxNrOfDLTsLCR,
    maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    maxNrOfHSSICHs,
    id-Active-Pattern-Sequence-Information,
```

```
id-AdjustmentRatio,
id-AllowedOueuingTime,
id-AntennaColocationIndicator.
id-BindingID.
id-C-ID.
id-C-RNTI,
id-CFN,
id-CFNReportingIndicator,
id-CN-CS-DomainIdentifier,
id-CN-PS-DomainIdentifier,
id-Cause,
id-CauseLevel-RL-AdditionFailureFDD,
id-CauseLevel-RL-AdditionFailureTDD.
id-CauseLevel-RL-ReconfFailure.
id-CauseLevel-RL-SetupFailureFDD,
id-CauseLevel-RL-SetupFailureTDD,
id-CCTrCH-InformationItem-RL-FailureInd,
id-CCTrCH-InformationItem-RL-RestoreInd,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
id-ClosedLoopModel-SupportIndicator,
id-ClosedLoopMode2-SupportIndicator,
id-CNOriginatedPage-PagingRgst,
id-CommonMeasurementAccuracy,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rgst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
id-CommonTransportChannelResourcesInitialisationNotRequired,
id-CongestionCause,
id-CoverageIndicator,
id-CriticalityDiagnostics,
id-D-RNTT.
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-ReconfRgstTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD,
```

```
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-ReconfRgstTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRgstTDD,
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-PhyChReconfRgstTDD,
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-Rgst,
id-DL-ReferencePowerInformation-DL-PC-Rgst,
id-DRXCycleLengthCoefficient,
id-DedicatedMeasurementObjectType-DM-Fail,
id-DedicatedMeasurementObjectType-DM-Fail-Ind,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rqst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,
id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode,
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-FDD,
id-DSCHs-to-Add-TDD,
id-DSCH-DeleteList-RL-ReconfPrepTDD.
id-DSCH-Delete-RL-ReconfPrepFDD,
id-DSCH-FDD-Information,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
id-DSCH-TDD-Information,
id-DSCH-FDD-InformationResponse,
id-DSCH-ModifyList-RL-ReconfPrepTDD,
id-DSCH-Modify-RL-ReconfPrepFDD,
id-DSCH-RNTI,
```

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id-DSCHsToBeAddedOrModified-FDD,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadvTDD.
id-EnhancedDSCHPC.
id-EnhancedDSCHPCIndicator.
id-Enhanced-PrimaryCPICH-EcNo,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
id-GA-Cell,
id-GA-CellAdditionalShapes,
id-HCS-Prio.
id-HSDSCH-FDD-Information,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-FDD-Update-Information,
id-HSDSCH-TDD-Update-Information,
id-HSDSCH-Information-to-Modify,
id-HSDSCH-Information-to-Modify-Unsynchronised,
id-HSDSCH-MACdFlows-to-Add,
id-HSDSCH-MACdFlows-to-Delete,
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd.
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd,
id-HSDSCH-RNTI,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSPDSCH-RL-ID,
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD,
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD,
id-HSSICH-Info-DM-Rprt,
id-HSSICH-Info-DM-Rgst,
id-HSSICH-Info-DM,
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rgst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationReportCharacteristics,
id-InformationType,
id-InnerLoopDLPCStatus,
id-SplitType,
id-LengthOfTFCI2,
id-L3-Information,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MeasurementFilterCoefficient,
id-MeasurementID,
id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
id-PagingArea-PagingRqst,
id-PartialReportingIndicator,
id-PDSCH-RL-ID,
id-Permanent-NAS-UE-Identity,
id-Phase-Reference-Update-Indicator,
id-FACH-FlowControlInformation,
id-PowerAdjustmentType,
id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
id-Primary-CPICH-Usage-For-Channel-Estimation,
```

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id-PropagationDelay,
id-Oth-Parameter.
id-RANAP-RelocationInformation.
id-ResetIndicator.
id-RL-Information-PhyChReconfRgstFDD,
id-RL-Information-PhyChReconfRgstTDD,
id-RL-Information-RL-AdditionRgstFDD,
id-RL-Information-RL-AdditionRgstTDD,
id-RL-Information-RL-DeletionRgst,
id-RL-Information-RL-FailureInd,
id-RL-Information-RL-ReconfPrepFDD,
id-RL-Information-RL-ReconfPrepTDD,
id-RL-Information-RL-RestoreInd.
id-RL-Information-RL-SetupRgstFDD.
id-RL-Information-RL-SetupRgstTDD,
id-RL-InformationItem-RL-CongestInd,
id-RL-InformationItem-DM-Rprt,
id-RL-InformationItem-DM-Rgst,
id-RL-InformationItem-DM-Rsp,
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-SetupRqstFDD,
id-RL-InformationList-RL-CongestInd,
id-RL-InformationList-RL-AdditionRqstFDD,
id-RL-InformationList-RL-DeletionRgst,
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-ReconfigurationReguestFDD-RL-InformationList,
id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
id-RL-ReconfigurationRequestTDD-RL-Information.
id-RL-ReconfigurationResponseTDD-RL-Information,
id-RL-Specific-DCH-Info,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rgst,
id-RL-Set-InformationItem-DM-Rsp.
id-RL-Set-Information-RL-FailureInd,
id-RL-Set-Information-RL-RestoreInd,
id-RL-Set-Successful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
```

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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-RNTT.
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-TnlOos,
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-ReconfRgstTDD,
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-SetupRgstTDD,
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
id-UL-CCTrCH-InformationListIE-PhyChReconfRgstTDD,
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-ReconfRgstFDD,
id-UL-DPCH-Information-RL-SetupRqstFDD,
id-UL-DPCH-InformationItem-PhyChReconfRgstTDD,
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id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
id-UL-DPCH-InformationItem-RL-SetupRspTDD.
id-UL-DPCH-InformationAddListIE-RL-ReconfReadvTDD.
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-UL-Physical-Channel-Information-RL-SetupRgstTDD,
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-SetupRgstTDD,
id-RL-LCR-InformationResponse-RL-SetupRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRgstTDD,
id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadvTDD,
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-PhyChReconfRgstTDD,
id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD,
id-timeSlot-ISCP-LCR-List-DL-PC-Rgst-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,
```

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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-AdditionRgstTDD,
    id-UL-CCTrCH-InformationItem-RL-AdditionRgstTDD,
    id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD,
    id-DL-CCTrCH-InformationItem-RL-AdditionRgstTDD,
    id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
    id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
    id-PrimaryCCPCH-RSCP-Delta
FROM RNSAP-Constants;
     ************
-- RADIO LINK SETUP REQUEST FDD
  RadioLinkSetupRequestFDD ::= SEOUENCE {
   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
                                              CRITICALITY notify TYPE RL-InformationList-RL-SetupRqstFDD
     ID id-RL-Information-RL-SetupRqstFDD
                                                                                                            PRESENCE mandatory } |
     ID id-Transmission-Gap-Pattern-Sequence-Information
                                                             CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information
    { 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,
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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,
                                    ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-DPCH-Information-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DPC-Mode
                                    CRITICALITY reject
                                                            EXTENSION DPC-Mode PRESENCE optional },
    . . .
DL-DPCH-Information-RL-SetupRgstFDD ::= SEOUENCE {
    t FCS
                                    TFCS,
    dl-DPCH-SlotFormat
                                    DL-DPCH-SlotFormat,
    nrOfDLchannelisationcodes
                                    NrOfDLchannelisationcodes,
    tFCI-SignallingMode
                                    TFCI-SignallingMode,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition
                                        MultiplexingPosition,
    powerOffsetInformation
                                        PowerOffsetInformation-RL-SetupRgstFDD,
    fdd-dl-TPC-DownlinkStepSize
                                    FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease
                                    LimitedPowerIncrease,
    innerLoopDLPCStatus
                                    InnerLoopDLPCStatus,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    . . .
DL-DPCH-Information-RL-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 {
        pol-ForTFCI-Bits
                                        PowerOffset,
       po2-ForTPC-Bits
                                        PowerOffset,
       po3-ForPilotBits
                                        PowerOffset,
                                        ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
PowerOffsetInformation-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
RL-InformationList-RL-SetupRqstFDD
SetupRqstFDD} }
RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory
RL-InformationItem-RL-SetupRgstFDD ::= SEOUENCE {
   rI.-ID
                                  RL-ID,
   c-TD
                                  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-Power
   dl-InitialTX-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"
                                  ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
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
                                                                                                                    PRESENCE optional } |
                                                  CRITICALITY ignore
                                                                            EXTENSION Enhanced-PrimaryCPICH-EcNo
     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 Oth-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
                                                                                DL-PowerBalancing-Information
                                                                                                                 PRESENCE optional } |
                                              CRITICALITY ignore
                                                                     EXTENSION
     ID id-HSDSCH-FDD-Information
                                                                            EXTENSION HSDSCH-FDD-Information
                                                                                                                 PRESENCE optional }
                                                  CRITICALITY reject
    { ID id-HSPDSCH-RL-ID
                                                  CRITICALITY reject
                                                                             EXTENSION RL-ID
                                                                                                                 PRESENCE conditional } |
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                     CRITICALITY ignore
                                                                                            EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation
                      PRESENCE optional } |
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH
                                                                                CRITICALITY ignore
                                                                                                                 UE-Support-Of-Dedicated-
                                                                                                      EXTENSION
Pilots-For-Channel-Estimation-Of-HS-DSCH
                                             PRESENCE optional }.
-- RADIO LINK SETUP REQUEST TDD
   *************************
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RadioLinkSetupRequestTDD ::= SEQUENCE {
    protocolIEs
                                    ProtocolIE-Container
                                                               {{RadioLinkSetupRequestTDD-IEs}},
    protocolExtensions
                                    ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}
                                                                                                                         OPTIONAL.
RadioLinkSetupRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                                        CRITICALITY reject TYPE RNC-ID
                                                                                                                             PRESENCE mandatory }
     ID id-S-RNTI
                                                        CRITICALITY reject TYPE S-RNTI
                                                                                                                             PRESENCE mandatory }
     ID id-D-RNTI
                                                        CRITICALITY reject TYPE D-RNTI
                                                                                                                             PRESENCE optional }
     ID id-UL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject TYPE UL-Physical-Channel-Information-RL-SetupRqstTDD
                                                                                                                                         PRESENCE
mandatory }
    { ID id-DL-Physical-Channel-Information-RL-SetupRgstTDD CRITICALITY reject TYPE DL-Physical-Channel-Information-RL-SetupRgstTDD
                                                                                                                                         PRESENCE
mandatory } |
     ID id-AllowedOueuingTime
                                                        CRITICALITY reject TYPE AllowedOueuingTime
                                                                                                                             PRESENCE optional
     ID id-UL-CCTrCH-InformationList-RL-SetupRgstTDD
                                                       CRITICALITY notify TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                            PRESENCE optional
                                                       CRITICALITY notify TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                            PRESENCE optional }
     ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD
     ID id-DCH-TDD-Information
                                        CRITICALITY reject TYPE DCH-TDD-Information
                                                                                                PRESENCE optional
     ID id-DSCH-TDD-Information
                                                                                                PRESENCE optional
                                        CRITICALITY reject TYPE DSCH-TDD-Information
     ID id-USCH-Information
                                    CRITICALITY reject TYPE USCH-Information
                                                                                        PRESENCE optional }
     ID id-RL-Information-RL-SetupRqstTDD
                                                        CRITICALITY reject TYPE RL-Information-RL-SetupRqstTDD
                                                                                                                             PRESENCE mandatory },
UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
    maxNrTimeslots-UL
                                    MaxNrTimeslots.
    minimumSpreadingFactor-UL
                                    MinimumSpreadingFactor,
    maxNrULPhysicalchannels
                                    MaxNrULPhysicalchannels,
                                    ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TDD-Support-8PSK
                                    CRITICALITY ignore
                                                            EXTENSION Support-8PSK
                                                                                        PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
    . . .
DL-Physical-Channel-Information-RL-SetupRgstTDD ::= SEQUENCE {
    maxNrTimeslots-DL
                                    MaxNrTimeslots,
    minimumSpreadingFactor-DL
                                    MinimumSpreadingFactor,
    maxNrDLPhysicalchannels
                                    MaxNrDLPhysicalchannels,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
DL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TDD-maxNrDLPhysicalchannels
                                           CRITICALITY ignore
                                                                        EXTENSION MaxNrDLPhysicalchannelsTS
                                                                                                                PRESENCE optional } |
     ID id-TDD-Support-8PSK
                                            CRITICALITY ignore
                                                                        EXTENSION Support-8PSK
                                                                                                             PRESENCE optional },
    -- Applicable to 1.28Mcps TDD only
```

. . .

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::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
UL-CCTrCH-InformationList-RL-SetupRqstTDD
InformationItemIEs-RL-SetupRgstTDD} }
UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
   UL-CCTrCH-InformationItem-RL-SetupRgstTDD ::= SEOUENCE {
   cCTrCH-ID
                           CCTrCH-ID.
   ul-TFCS
                           TFCS,
   tFCI-Coding
                           TFCI-Coding,
   ul-PunctureLimit
                               PunctureLimit,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRgstTDD
                                                   CRITICALITY reject
                                                                        EXTENSION TDD-TPC-UplinkStepSize-LCR
                                                                                                              PRESENCE optional },
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
                                             ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationList-RL-SetupRqstTDD
InformationItemIEs-RL-SetupRgstTDD} }
DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
   DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID.
   dl-TFCS
                           TFCS,
   tFCI-Coding
                           TFCI-Coding,
   dl-PunctureLimit
                               PunctureLimit,
   tdd-TPC-DownlinkStepSize
                               TDD-TPC-DownlinkStepSize,
   cCTrCH-TPCList
                               CCTrCH-TPCList-RL-SetupRgstTDD OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-TPCList-RL-SetupRgstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRgstTDD
CCTrCH-TPCItem-RL-SetupRgstTDD ::= SEOUENCE {
   cCTrCH-ID
                                  ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-Information-RL-SetupRgstTDD ::= SEQUENCE
   rL-ID
                              RL-ID.
   C-TD
                              C-ID.
   frameOffset
                              FrameOffset,
    specialBurstScheduling
                              SpecialBurstScheduling,
   primaryCCPCH-RSCP
                                  PrimaryCCPCH-RSCP
                                                         OPTIONAL,
                                  DL-TimeSlot-ISCP-Info
   dL-TimeSlot-ISCP
                                                         OPTIONAL,
    --for 3.84Mcps TDD only
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    . . .
RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD
                                                            CRITICALITY reject
                                                                                    EXTENSION
                                                                                                DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional }|
    { ID id-TSTD-Support-Indicator-RL-SetupRqstTDD
                                                             CRITICALITY ignore
                                                                                    EXTENSION
                                                                                               TSTD-Support-Indicator
                                                                                                                               PRESENCE
optional
    -- for 1.28Mcps TDD only
    EXTENSION RL-Specific-DCH-Info
                                                                                           PRESENCE optional } |
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
    ID id-UL-Synchronisation-Parameters-LCR
                                                     CRITICALITY ignore
                                                                            EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                            PRESENCE
    optional } | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta
                                     CRITICALITY ignore
                                                            EXTENSION PrimaryCCPCH-RSCP-Delta
                                                                                                  PRESENCE
                                                                                                              optional }.
    . . .
RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                                                                                 PRESENCE optional }
                                                 CRITICALITY ignore
                                                                            EXTENSION Permanent-NAS-UE-Identity
     ID id-HSDSCH-TDD-Information
                                                 CRITICALITY reject
                                                                            EXTENSION HSDSCH-TDD-Information PRESENCE optional }
    { ID id-HSPDSCH-RL-ID
                                                 CRITICALITY reject
                                                                            EXTENSION RL-ID
                                                                                                                 PRESENCE conditional } |
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-PDSCH-RL-ID
                                 CRITICALITY ignore
                                                            EXTENSION RL-ID
                                                                                PRESENCE optional },
    . . .
-- RADIO LINK SETUP RESPONSE FDD
      RadioLinkSetupResponseFDD ::= SEQUENCE {
                                                            {{RadioLinkSetupResponseFDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                  ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
    . . .
RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                         CRITICALITY ignore TYPE D-RNTI
                                                                                           PRESENCE optional
     ID id-CN-PS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                             PRESENCE optional }
```

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ID id-UL-SIRTarget
                                         CRITICALITY ignore TYPE UL-SIR
                                                                                       PRESENCE optional }
     ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
RL-InformationResponseList-RL-SetupRspFDD
                                             ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-SetupRspFDD} }
RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseItem-RL-SetupRspFDD PRESENCE mandatory
RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   rL-Set-ID
                                  RL-Set-ID,
    uRA-Information
                                  URA-Information
                                                     OPTIONAL,
    sAI
                                  SAI,
                                  GA-Cell
   gA-Cell
                                             OPTIONAL.
    gA-AccessPointPosition
                                  GA-AccessPointPosition
                                                             OPTIONAL.
    received-total-wide-band-power Received-total-wide-band-power,
    secondary-CCPCH-Info
                                  Secondary-CCPCH-Info
                                                             OPTIONAL,
    dl-CodeInformation
                                  FDD-DL-CodeInformation,
   diversityIndication
                                  DiversityIndication-RL-SetupRspFDD,
    sSDT-SupportIndicator
                                  SSDT-SupportIndicator,
   maxUL-SIR
                                  UL-SIR,
   minUL-SIR
                                  UL-SIR,
                                  Closedlooptimingadjustmentmode OPTIONAL,
    closedlooptimingadjustmentmode
   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}|
                                                                                                  PRESENCE optional } |
     ID id-TFCI-PC-SupportIndicator
                                         CRITICALITY ignore EXTENSION
                                                                        TFCI-PC-SupportIndicator
     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
   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,
                               ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
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 ::= {
                                              CRITICALITY ignore
                                                                                                                    PRESENCE optional }
     ID id-DSCH-RNTI
                                                                      EXTENSION DSCH-RNTI
     ID id-HSDSCH-RNTI
                                               CRITICALITY ignore
                                                                                                                    PRESENCE optional } |
                                                                      EXTENSION HSDSCH-RNTI
     ID id-HSDSCH-FDD-Information-Response
                                               CRITICALITY ignore
                                                                                                                    PRESENCE optional },
                                                                      EXTENSION HSDSCH-FDD-Information-Response
-- RADIO LINK SETUP RESPONSE TDD
   *****************
RadioLinkSetupResponseTDD ::= SEQUENCE {
                                                              {{RadioLinkSetupResponseTDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
                                   ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}
   protocolExtensions
                                                                                                                       OPTIONAL,
```

```
RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                    PRESENCE optional }
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                              PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                              PRESENCE optional
     -- Mandatory for 3.84Mcps TDD only
     ID id-UL-SIRTarget
                                      CRITICALITY ignore TYPE UL-SIR
                                                                                    PRESENCE mandatory }
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional }.
RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID
                              RL-ID.
    uRA-Information
                              URA-Information
                                                  OPTIONAL.
    sAI
                              SAI.
   gA-Cell
                              GA-Cell
                                          OPTIONAL.
    qA-AccessPointPosition
                              GA-AccessPointPosition
                                                     OPTIONAL,
    ul-TimeSlot-ISCP-Info
                              UL-TimeSlot-ISCP-Info,
   maxUL-SIR
                              UL-SIR,
   minUL-SIR
                              UL-SIR.
   maximumAllowedULTxPower
                              MaximumAllowedULTxPower,
   maximumDLTxPower
                              DL-Power,
   minimumDLTxPower
                              DL-Power,
    uARFCNforNt
                              UARFCN
                                                  OPTIONAL,
    cellParameterID
                              CellParameterID
                                                  OPTIONAL,
    syncCase
                              SyncCase
                                                  OPTIONAL.
                              SCH-TimeSlot
    sCH-TimeSlot
                                                  OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
                              SCTD-Indicator OPTIONAL,
    sCTD-Indicator
   pCCPCH-Power
                              PCCPCH-Power,
    timingAdvanceApplied
                              TimingAdvanceApplied,
    alphaValue
                              AlphaValue,
    ul-PhysCH-SF-Variation
                              UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                      SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                      Secondary-CCPCH-Info-TDD
                                                                 OPTIONAL,
    ul-CCTrCHInformation
                                      UL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                 OPTIONAL.
    dl-CCTrCHInformation
                                      DL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
    dCH-InformationResponse
                                      DCH-InformationResponseList-RL-SetupRspTDD
                                                                                OPTIONAL,
   dsch-InformationResponse
                                      DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse
                                      USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    neighbouring-UMTS-CellInformation
                                              Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                              Neighbouring-GSM-CellInformation OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION
                                                                         GA-CellAdditionalShapes
                                                                                                   PRESENCE optional } |
     ID id-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                             PRESENCE optional }
                                                                                 PRESENCE conditional },
    { ID id-TimeSlot-RL-SetupRspTDD
                                      CRITICALITY ignore EXTENSION TimeSlot
    -- This IE shall be present if Sync Case IE is Casel. --
    . . .
```

```
UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory
UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD
UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID
                              CCTrCH-ID,
   ul-DPCH-Information
                                  UL-DPCH-InformationList-RL-SetupRspTDD
                                                                             OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD
                                                                 CRITICALITY ignore
                                                                                         EXTENSION UL-SIR
                                                                                                            PRESENCE optional },
UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD
                                                     CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory
UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
    tDD-DPCHOffset
                                  TDD-DPCHOffset,
   uL-Timeslot-Information
                                  UL-Timeslot-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
 \texttt{DL-CCTrCHInformationList-RL-SetupRspTDD} ::= \texttt{ProtocolIE-Single-Container} \ \{ \{ \texttt{DL-CCTrCHInformationListIEs-RL-SetupRspTDD} \} \} 
DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD
                                                     CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD PRESENCE mandatory }
DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD
DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID
                              CCTrCH-ID,
   dl-DPCH-Information
                                  DL-DPCH-InformationList-RL-SetupRspTDD
                                                                             OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
```

```
DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD
                                                      CRITICALITY ignore
                                                                              EXTENSION DL-Power
                                                                                                    PRESENCE optional } | -- this is a DCH type
CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD
                                                      CRITICALITY ignore
                                                                                                    PRESENCE optional }, -- this is a DCH type
                                                                              EXTENSION DL-Power
CCTrCH power
DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                   RepetitionPeriod,
   repetitionLength
                                   RepetitionLength,
    tDD-DPCHOffset
                                   TDD-DPCHOffset,
   dL-Timeslot-Information
                                   DL-Timeslot-Information,
   iE-Extensions
                                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}
DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}
DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD
DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   dsch-ID
                          DSCH-ID,
    dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
    iE-Extensions
                           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD
                                                        CRITICALITY ignore TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD
USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID
                                USCH-ID,
    bindingID
                                BindingID OPTIONAL,
    transportLayerAddress
                                TransportLayerAddress
                                                        OPTIONAL.
    transportFormatManagement
                                TransportFormatManagement,
    iE-Extensions
                                ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD CRITICALITY ignore EXTENSION RL-LCR-InformationResponse-RL-SetupRspTDD
                                                                                                                                      PRESENCE
optional}|
    --Mandatory for 1.28Mcps TDD only
     ID id-HSDSCH-RNTI
                                                CRITICALITY ignore
                                                                         EXTENSION HSDSCH-RNTI
                                                                                                                        PRESENCE optional }
                                                                                                                        PRESENCE optional }
      ID id-HSDSCH-TDD-Information-Response
                                                CRITICALITY ignore
                                                                         EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                        PRESENCE optional },
    { ID id-DSCH-RNTI
                                                CRITICALITY ignore
                                                                         EXTENSION DSCH-RNTI
    . . .
RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
    uRA-Information
                                URA-Information,
    sAI
                                SAI,
    qA-Cell
                                GA-Cell
                                            OPTIONAL,
    qA-AccessPointPosition
                                GA-AccessPointPosition OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info
                                UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR
                                UL-SIR,
    minUL-SIR
                                UL-SIR,
    maximumAllowedULTxPower
                                MaximumAllowedULTxPower,
    maximumDLTxPower
                                DL-Power,
    minimumDLTxPower
                                DL-Power,
    uARFCNforNt
                                UARFCN
                                                        OPTIONAL,
    cellParameterID
                                CellParameterID
                                                        OPTIONAL,
    sCTD-Indicator
                        SCTD-Indicator OPTIONAL,
    pCCPCH-Power
                                PCCPCH-Power,
    alphaValue
                                AlphaValue,
    ul-PhysCH-SF-Variation
                                UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                            SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                            Secondary-LCR-CCPCH-Info-TDD
                                                                                             OPTIONAL,
    ul-LCR-CCTrCHInformation
                                            UL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
```

```
dl-LCR-CCTrCHInformation
                                            DL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                            OPTIONAL,
    dCH-InformationResponse
                                            DCH-InformationResponseList-RL-SetupRspTDD
                                                                                            OPTIONAL.
    dsch-LCR-InformationResponse
                                            DSCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                            OPTIONAL.
    usch-LCR-InformationResponse
                                            USCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                            OPTIONAL.
    neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation
                                                                                            OPTIONAL.
    neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation
                                                                                            OPTIONAL,
                                            ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
    iE-Extensions
                                                                                                                                      OPTIONAL,
RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                                    CRITICALITY ignore EXTENSION
                                                                                    GA-CellAdditionalShapes
                                                                                                                 PRESENCE optional }
     ID id-HCS-Prio
                                                    CRITICALITY ignore EXTENSION
                                                                                    HCS-Prio
                                                                                                                 PRESENCE optional } |
     ID id-UL-TimingAdvanceCtrl-LCR
                                                    CRITICALITY ignore EXTENSION
                                                                                    UL-TimingAdvanceCtrl-LCR
                                                                                                                 PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD only
UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                      PRESENCE
mandatory }
UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    ul-DPCH-LCR-Information
                                UL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                                OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
                                                                        CRITICALITY ignore
                                                                                                EXTENSION UL-SIR
                                                                                                                    PRESENCE optional },
    . . .
UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEOUENCE
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    uL-TimeslotLCR-Information
                                    UL-TimeslotLCR-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
```

```
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD PRESENCE
mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE
    cCTrCH-ID
                               CCTrCH-ID,
    dl-DPCH-LCR-Information
                               DL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                               OPTIONAL.
                               ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                           CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
}
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod
                                   RepetitionPeriod,
                                   RepetitionLength,
   repetitionLength
    tDD-DPCHOffset
                                  TDD-DPCHOffset,
    dL-Timeslot-LCR-Information DL-TimeslotLCR-Information,
    tSTD-Indicator
                                   TSTD-Indicator,
                                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}
DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                           CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD
```

```
DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   dsch-ID
                           DSCH-ID.
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation.
   bindingID
                           BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
                           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}
USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                           CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD
USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEOUENCE {
   usch-ID
                               USCH-ID,
   bindingID
                               BindingID OPTIONAL,
    transportLayerAddress
                               TransportLayerAddress
                                                      OPTIONAL,
    transportFormatManagement
                               TransportFormatManagement,
                               ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK SETUP FAILURE FDD
__ *******************************
RadioLinkSetupFailureFDD ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkSetupFailureFDD-IEs}},
                                   ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}
   protocolExtensions
                                                                                                                      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
                                                                             TYPE CauseLevel-RL-SetupFailureFDD
                                                                                                                    PRESENCE mandatory } |
                                                      CRITICALITY ignore
     ID id-UL-SIRTarget
                                       CRITICALITY ignore TYPE UL-SIR
                                                                                      PRESENCE optional }
```

```
PRESENCE optional },
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
   generalCause
                       GeneralCauseList-RL-SetupFailureFDD,
                       RLSpecificCauseList-RL-SetupFailureFDD.
   rLSpecificCause
GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE
                                              Cause,
   iE-Extensions
                                              GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespList-RL-SetupFailureFDD
                                                             UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD
                                                             SuccessfulRL-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
                                              ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL.
   iE-Extensions
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-RNTI
                                              CRITICALITY ignore
                                                                     EXTENSION DSCH-RNTI
                                                                                                                  PRESENCE optional }
     ID id-HSDSCH-RNTI
                                                                                                                  PRESENCE optional
                                              CRITICALITY ignore
                                                                     EXTENSION HSDSCH-RNTI
                                                                                                                  PRESENCE optional },
     ID id-HSDSCH-FDD-Information-Response
                                              CRITICALITY ignore
                                                                     EXTENSION HSDSCH-FDD-Information-Response
UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEOUENCE (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 {
   rI.-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
    rI.-ID
                                            RL-ID,
    rL-Set-ID
                                            RL-Set-ID,
    uRA-Information
                                            URA-Information
                                                                OPTIONAL.
    sAI
                                            SAI.
    qA-Cell
                                            GA-Cell
                                                        OPTIONAL.
    qA-AccessPointPosition
                                            GA-AccessPointPosition
                                                                        OPTIONAL,
    received-total-wide-band-power
                                                                    Received-total-wide-band-power,
    secondary-CCPCH-Info
                                            Secondary-CCPCH-Info
                                                                        OPTIONAL,
    dl-CodeInformation
                                            FDD-DL-CodeInformation,
    diversityIndication
                                            DiversityIndication-RL-SetupFailureFDD,
    sSDT-SupportIndicator
                                            SSDT-SupportIndicator,
    maxUL-SIR
                                            UL-SIR,
    minUL-STR
                                            UL-SIR,
    closedlooptimingadiustmentmode
                                            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-InformationResponseList-RL-SetupFailureFDD
    dSCH-InformationResponse-RL-SetupFailureFDD
                                                                                                        OPTIONAL,
    neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble
                                            PC-Preamble,
    sRB-Delav
                                            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
                                                                                            DL-PowerBalancing-ActivationIndicator
                                                                            EXTENSION
                                                                                                                                      PRESENCE
optional}
     ID id-TFCI-PC-SupportIndicator
                                            CRITICALITY ignore EXTENSION
                                                                            TFCI-PC-SupportIndicator
                                                                                                        PRESENCE optional } |
                                                                                PRESENCE optional } |
     ID id-HCS-Prio
                                CRITICALITY ignore EXTENSION HCS-Prio
     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
   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 ::= {
   PRESENCE mandatory }
RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK SETUP FAILURE TDD
  ***********************
RadioLinkSetupFailureTDD ::= SEOUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{RadioLinkSetupFailureTDD-IEs}},
                                ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL,
RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-SetupFailureTDD CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureTDD
                                                                                             PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
   . . .
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
   generalCause
                     GeneralCauseList-RL-SetupFailureTDD,
                     RLSpecificCauseList-RL-SetupFailureTDD,
   rLSpecificCause
```

```
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
                              ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }
   iE-Extensions
                                                                                                           OPTIONAL,
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
   iE-Extensions
                                                         ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
   OPTIONAL,
RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
          id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD
                                                                        CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD
                  PRESENCE
                              mandatory
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   cause
                              Cause,
   iE-Extensions
                                  ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RADIO LINK ADDITION REQUEST FDD
__ ********************************
RadioLinkAdditionRequestFDD ::= SEQUENCE {
```

```
{{RadioLinkAdditionRequestFDD-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}
                                                                                                                OPTIONAL,
RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-UL-SIRTarget
                                    CRITICALITY reject TYPE UL-SIR
                                                                               PRESENCE mandatory }
     { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
   . . .
RL-InformationList-RL-AdditionRgstFDD
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRgstFDD-IEs} }
RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-AdditionRqstFDD CRITICALITY notify TYPE RL-Information-RL-AdditionRqstFDD PRESENCE mandatory
RL-Information-RL-AdditionRgstFDD ::= SEQUENCE {
   rI.-ID
                                RL-ID,
   c-TD
                                C-ID,
   frameOffset
                                FrameOffset,
   chipOffset
                                ChipOffset,
   diversityControlField
                                DiversityControlField,
   primaryCPICH-EcNo
                                PrimaryCPICH-EcNo
                                                      OPTIONAL.
                                SSDT-CellID
   sSDT-CellID
                                                  OPTIONAL,
   transmitDiversityIndicator
                                TransmitDiversityIndicator
                                                             OPTIONAL.
                                ProtocolExtensionContainer { {RL-Information-RL-AdditionRgstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-AdditionRqstFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DLReferencePower CRITICALITY ignore
                                                  EXTENSION DL-Power
                                                                            PRESENCE optional } |
                                                                                                             PRESENCE optional } |
     ID id-Enhanced-PrimaryCPICH-EcNo
                                               CRITICALITY ignore
                                                                        EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                         EXTENSION RL-Specific-DCH-Info PRESENCE
     ID id-RL-Specific-DCH-Info
                                   CRITICALITY ignore
                                                                                                  optional }|
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
    ID id-Oth-Parameter CRITICALITY ignore EXTENSION Oth-Parameter
                                                                            PRESENCE optional },
RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DPC-Mode
                                CRITICALITY reject
                                                                               PRESENCE optional }|
                                                      EXTENSION
                                                                DPC-Mode
    ID id-Permanent-NAS-UE-Identity
                                               CRITICALITY ignore
                                                                        EXTENSION Permanent-NAS-UE-Identity
                                                                                                          PRESENCE optional },
  -- RADIO LINK ADDITION REQUEST TDD
RadioLinkAdditionRequestTDD ::= SEQUENCE {
```

```
{{RadioLinkAdditionRequestTDD-IEs}},
                                 ProtocolIE-Container
   protocolIEs
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}
                                                                                                                  OPTIONAL,
RadioLinkAdditionRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-AdditionRqstTDD CRITICALITY reject TYPE RL-Information-RL-AdditionRqstTDD
                                                                                                    PRESENCE mandatory },
   . . .
RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
   rL-ID
                                 RL-ID,
   c-ID
                                 C-ID.
   frameOffset
                                 FrameOffset.
   diversityControlField
                                 DiversityControlField,
   primaryCCPCH-RSCP
                                 PrimaryCCPCH-RSCP
                                                       OPTIONAL,
   dL-TimeSlot-ISCP-Info
                                 DL-TimeSlot-ISCP-Info
                                                      OPTIONAL,
   --for 3.84Mcps TDD only
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Information-RL-AdditionRgstTDD-ExtIEs} } OPTIONAL,
RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRgstTDD CRITICALITY reject
                                                                                 EXTENSION
                                                                                            DL-TimeSlot-ISCP-LCR-Information
                                                                                                                            PRESENCE
optional
   --for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info
                                    CRITICALITY ignore
                                                          EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                                    optional }
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
    { ID id-UL-Synchronisation-Parameters-LCR
                                                   CRITICALITY ignore
                                                                         EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                       PRESENCE
   optional } | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   EXTENSION PrimaryCCPCH-RSCP-Delta
                                                                                               PRESENCE
                                                                                                          optional },
RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                               CRITICALITY ignore
                                                                         EXTENSION Permanent-NAS-UE-Identity PRESENCE optional }
    ID id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                                      CRITICALITY notify EXTENSION UL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE
optional } |
   { ID id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                                      CRITICALITY notify EXTENSION DL-CCTrCH-InformationList-RL-AdditionRqstTDD PRESENCE
optional
   . . .
UL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                           ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-AdditionRgstTDD } }
UL-CCTrCH-InformationItemIEs-RL-AdditionRgstTDD RNSAP-PROTOCOL-IES ::= {
   optional},
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
```

```
uplinkStepSizeLCR
                            TDD-TPC-UplinkStepSize-LCR
                                                       OPTIONAL,
   -- Applicable to 1.28Mcps TDD only
   iE-Extensions
                            ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                           ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationList-RL-AdditionRqstTDD
InformationItemIEs-RL-AdditionRqstTDD} }
DL-CCTrCH-InformationItemIEs-RL-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
   optional},
   . . .
DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   downlinkStepSize
                            TDD-TPC-DownlinkStepSize OPTIONAL,
                            ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ADDITION RESPONSE FDD
  RadioLinkAdditionResponseFDD ::= SEQUENCE {
                                                         {{RadioLinkAdditionResponseFDD-IEs}},
   protocolIEs
                                ProtocolIE-Container
                                ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                 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
                                              ::= SEOUENCE (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
mandatory }
RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE
                                    RL-ID,
    rL-Set-ID
                                    RL-Set-ID,
    uRA-Information
                                    URA-Information
                                                        OPTIONAL,
    SAT
                                    SAT.
    qA-Cell
                                    GA-Cell
                                                OPTIONAL,
                                    GA-AccessPointPosition OPTIONAL,
    gA-AccessPointPosition
    received-total-wide-band-power Received-total-wide-band-power,
    secondary-CCPCH-Info
                                    Secondary-CCPCH-Info
    dl-CodeInformation
                                    DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication
                                    DiversityIndication-RL-AdditionRspFDD,
                                        SSDT-SupportIndicator,
    sSDT-SupportIndicator
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
                                        Closedlooptimingadjustmentmode OPTIONAL,
    closedlooptimingadjustmentmode
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power,
    minimumDLTxPower
                                        DL-Power,
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
                                        Neighbouring-GSM-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
    pC-Preamble
                                        PC-Preamble,
                                        SRB-Delay,
    sRB-Delay
    primaryCPICH-Power
                                        PrimaryCPICH-Power,
                                        ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
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 } |
                                CRITICALITY ignore EXTENSION
                                                                                PRESENCE optional } |
     ID id-HCS-Prio
                                                                HCS-Prio
     ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                            CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                            PRESENCE
optional },
    . . .
DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}
DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
     ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                        PRESENCE mandatory }
DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
                                    Combining-RL-AdditionRspFDD,
    combining
    nonCombining
                                    NonCombining-RL-AdditionRspFDD
```

```
Combining-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
   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 ::= {
    ****************
-- RADIO LINK ADDITION RESPONSE TDD
         ******************
RadioLinkAdditionResponseTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkAdditionResponseTDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}
                                                                                                                        OPTIONAL,
   protocolExtensions
RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD
                                                         CRITICALITY ignore TYPE RL-InformationResponse-RL-AdditionRspTDD PRESENCE optional }
    -- Mandatory for 3.84Mcps TDD only
   { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
   . . .
RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                                      RL-ID,
   uRA-Information
                                      URA-Information
                                                         OPTIONAL,
   sAI
                                      SAI,
   qA-Cell
                                      GA-Cell
                                                  OPTIONAL,
                                      GA-AccessPointPosition OPTIONAL,
   gA-AccessPointPosition
   ul-TimeSlot-ISCP-Info
                                      UL-TimeSlot-ISCP-Info,
   minUL-SIR
                                      UL-SIR,
   maxUL-SIR
                                      UL-SIR,
```

```
maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power.
    minimumDLTxPower
                                        DL-Power.
    pCCPCH-Power
                                        PCCPCH-Power,
    timingAdvanceApplied
                                        TimingAdvanceApplied,
    alphaValue
                                        AlphaValue,
    ul-PhysCH-SF-Variation
                                        UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                        Secondary-CCPCH-Info-TDD
                                                                                        OPTIONAL,
    ul-CCTrCHInformation
                                        UL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                        OPTIONAL,
    dl-CCTrCHInformation
                                        DL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                        OPTIONAL,
    dCH-Information
                                        DCH-Information-RL-AdditionRspTDD
                                                                                        OPTIONAL,
    dSCH-InformationResponse
                                        DSCH-InformationResponse-RL-AdditionRspTDD
                                                                                        OPTIONAL.
    uSCH-InformationResponse
                                        USCH-InformationResponse-RL-AdditionRspTDD
                                                                                        OPTIONAL.
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
                                        ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                        PRESENCE optional } |
     ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION
                                                                            GA-CellAdditionalShapes
                                CRITICALITY ignore EXTENSION HCS-Prio
     ID id-HCS-Prio
                                                                                PRESENCE optional },
    . . .
UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-AdditionRspTDD
                                                                                                                                      PRESENCE
mandatory }
UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD
UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
                                    UL-DPCH-InformationList-RL-AdditionRspTDD
    ul-DPCH-Information
                                                                                    OPTIONAL,
                                    ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
```

```
repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
    t.DD-DPCHOffset
                                  TDD-DPCHOffset.
   uL-Timeslot-Information
                                  UL-Timeslot-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-AdditionRspTDD ::= Protocolie-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD
DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   dl-DPCH-Information
                                  DL-DPCH-InformationList-RL-AdditionRspTDD
                                  ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD
                                                                                                     PRESENCE optional \ -- this is a DCH
                                                         CRITICALITY ignore
                                                                                EXTENSION DL-Power
type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD
                                                                                                     PRESENCE optional }, -- this is a DCH
                                                         CRITICALITY ignore
                                                                                EXTENSION DL-Power
type CCTrCH power
DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD
                                                        CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
   tDD-DPCHOffset
                                  TDD-DPCHOffset,
   dL-Timeslot-Information
                                  DL-Timeslot-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
   diversityIndication
                                      DiversityIndication-RL-AdditionRspTDD,
                                  ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
   combining
                   Combining-RL-AdditionRspTDD,
   nonCombining
                  NonCombining-RL-AdditionRspTDD
Combining-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
   iE-Extensions
                              ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                         CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                   PRESENCE optional },
    . . .
NonCombining-RL-AdditionRspTDD ::= SEQUENCE {
   dCH-InformationResponse
                              DCH-InformationResponse,
                                  ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}
DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD
                                                   CRITICALITY ignore TYPE DSCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                       PRESENCE mandatory }
DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD
DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   dsch-ID
                          DSCH-ID,
    transportFormatManagement TransportFormatManagement,
    dSCH-FlowControlInformation
                                  DSCH-FlowControlInformation,
    diversityIndication
                          DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions
```

```
DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
                          ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DiversityIndication-RL-AdditionRspTDD2-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}
USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD
                                                    CRITICALITY ignore TYPE USCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                      PRESENCE mandatory }
USCH-InformationListIE-RL-AdditionRspTDD ::= SEOUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD
USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID
                          USCH-ID,
    transportFormatManagement TransportFormatManagement,
   diversityIndication DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
   iE-Extensions
                          ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    EXTENSION RL-LCR-InformationResponse-RL-AdditionRspTDD
    PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD only
    . . .
RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   uRA-Information
                              URA-Information,
   sAI
                              SAI,
   qA-Cell
                              GA-Cell
                                         OPTIONAL,
   gA-AccessPointPosition
                              GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-LCR-Info UL-TimeSlot-ISCP-LCR-Info,
                              UL-SIR,
   maxUL-SIR
   minUL-SIR
                              UL-SIR,
```

```
pCCPCH-Power
                              PCCPCH-Power,
   maximumAllowedULTxPower
                              MaximumAllowedULTxPower.
   maximumDLTxPower
                              DL-Power.
   minimumDLTxPower
                              DL-Power,
    alphaValue
                              AlphaValue,
    ul-PhysCH-SF-Variation
                              UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                      SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                      Secondary-LCR-CCPCH-Info-TDD
                                                                                        OPTIONAL,
    ul-CCTrCH-LCR-Information
                                      UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                        OPTIONAL,
                                      DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
    dl-CCTrCH-LCR-Information
                                                                                        OPTIONAL,
                                      DCH-InformationResponseList-RL-AdditionRspTDD
   dCH-InformationResponse
                                                                                        OPTIONAL,
    dsch-LCR-InformationResponse
                                      DSCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                       OPTIONAL,
    usch-LCR-InformationResponse
                                          USCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                          OPTIONAL,
    neighbouring-UMTS-CellInformation
                                             Neighbouring-UMTS-CellInformation
                                                                                           OPTIONAL.
    neighbouring-GSM-CellInformation
                                             Neighbouring-GSM-CellInformation
                                                                                         OPTIONAL,
                                             ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs} }
    iE-Extensions
   OPTIONAL,
RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                      CRITICALITY ignore EXTENSION
                                                                    GA-CellAdditionalShapes
                                                                                                PRESENCE optional }
     ID id-HCS-Prio
                                      CRITICALITY ignore EXTENSION
                                                                                                PRESENCE optional }
                                                                    HCS-Prio
                                                                                                PRESENCE optional }.
     ID id-UL-TimingAdvanceCtrl-LCR
                                      CRITICALITY ignore EXTENSION
                                                                    UL-TimingAdvanceCtrl-LCR
    -- Mandatory for 1.28Mcps TDD only
UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}
UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                              CCTrCH-ID,
    ul-DPCH-LCR-Information
                                      UL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                        OPTIONAL,
                                  ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                             CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
```

```
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod.
   repetitionLength
                                 RepetitionLength,
   t.DD-DPCHOffset
                                 TDD-DPCHOffset.
   uL-TimeslotLCR-Information
                                 UL-TimeslotLCR-Information,
                                 ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEOUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   dl-DPCH-LCR-Information
                              DL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                               OPTIONAL.
                              ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
                                 RepetitionPeriod,
   repetitionPeriod
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   dL-TimeslotLCR-Information
                                 DL-TimeslotLCR-Information,
   tSTD-Indicator
                                 TSTD-Indicator,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   . . .
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}
DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DCH-InformationResponse CRITICALITY ignore
                                                          TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}
DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                               CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD
DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID
                           DSCH-ID,
    dSCH-FlowControlInformation
                                    DSCH-FlowControlInformation,
    bindingID
                           BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
    iE-Extensions
                           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}
USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                               CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD
USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE
    usch-ID
                               USCH-ID,
    transportFormatManagement TransportFormatManagement,
    diversityIndication
                               DiversityIndication-RL-AdditionRspTDD2
                                                                            OPTIONAL,
                               ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ADDITION FAILURE FDD
```

```
RadioLinkAdditionFailureFDD ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkAdditionFailureFDD-IEs}},
                                   ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}
   protocolExtensions
                                                                                                                        OPTIONAL,
RadioLinkAdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD
                                                                                               TYPE CauseLevel-RL-AdditionFailureFDD
                                                              CRITICALITY
                                                                              ignore
           PRESENCE
                    mandatory }
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
   generalCause
                       GeneralCauseList-RL-AdditionFailureFDD,
                       RLSpecificCauseList-RL-AdditionFailureFDD,
   rLSpecificCause
GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause
                                              ProtocolExtensionContainer { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }
   iE-Extensions
                                                                                                                                 OPTIONAL,
GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                  UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                  SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD OPTIONAL,
                                              ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }
   iE-Extensions
                                                                                                                                    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,
```

```
ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
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-Set-ID
                                        RL-Set-ID,
    uRA-Information
                                        URA-Information
                                                            OPTIONAL,
    SAT
                                        SAT.
    qA-Cell
                                                    OPTIONAL,
                                        GA-Cell
                                        GA-AccessPointPosition
    gA-AccessPointPosition
                                                                    OPTIONAL,
    received-total-wide-band-power
                                        Received-total-wide-band-power,
    secondary-CCPCH-Info
                                        Secondary-CCPCH-Info
                                                                    OPTIONAL,
    dl-CodeInformation
                                        DL-CodeInformationList-RL-AdditionFailureFDD,
    diversityIndication
                                        DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator
                                        SSDT-SupportIndicator,
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
    closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power,
    minimumDLTxPower
                                        DL-Power,
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
                                        Neighbouring-GSM-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
    primaryCPICH-Power
                                        PrimaryCPICH-Power,
    pC-Preamble
                                        PC-Preamble,
    sRB-Delay
                                        SRB-Delay,
                                        ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                                    CRITICALITY ignore EXTENSION
                                                                                    GA-CellAdditionalShapes
                                                                                                                 PRESENCE optional }
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore EXTENSION
                                                                                    DL-PowerBalancing-ActivationIndicator PRESENCE optional | |
     ID id-TFCI-PC-SupportIndicator
                                                    CRITICALITY ignore EXTENSION
                                                                                    TFCI-PC-SupportIndicator
                                                                                                                 PRESENCE optional } |
     ID id-HCS-Prio
                                                    CRITICALITY ignore EXTENSION
                                                                                    HCS-Prio
                                                                                                  PRESENCE optional }
     ID id-Primary-CPICH-Usage-For-Channel-Estimation
                                                            CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation
                                                                                                                                            PRESENCE
optional },
```

```
DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}
DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
                              Combining-RL-AdditionFailureFDD,
                              NonCombining-RL-AdditionFailureFDD
   nonCombining
Combining-RL-AdditionFailureFDD ::= SEOUENCE {
   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 ::= {
-- RADIO LINK ADDITION FAILURE TDD
     ******************
RadioLinkAdditionFailureTDD ::= SEQUENCE {
                              ProtocolIE-Container
                                                      {{RadioLinkAdditionFailureTDD-IEs}},
   protocolIEs
                              ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
RadioLinkAdditionFailureTDD-IES RNSAP-PROTOCOL-IES ::= {
    ID id-CriticalityDiagnostics
                               CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                   PRESENCE optional },
```

```
CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
   generalCause
                      GeneralCauseList-RL-AdditionFailureTDD,
   rLSpecificCause
                       RLSpecificCauseList-RL-AdditionFailureTDD,
GeneralCauseList-RL-AdditionFailureTDD ::= SEOUENCE {
                               ProtocolExtensionContainer { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }
   iE-Extensions
                                                                                                                OPTIONAL,
GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
   unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD
                                                              Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
                                                              ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
   iE-Extensions
       OPTIONAL,
    . . .
RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
          id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD PRESENCE mandatory}
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
   rL-ID
                               RL-ID,
   cause
   iE-Extensions
                               ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ****************
-- RADIO LINK DELETION REQUEST
```

```
RadioLinkDeletionRequest ::= SEQUENCE {
                               ProtocolIE-Container
                                                       {{RadioLinkDeletionRequest-IEs}},
   protocolIEs
                               ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL
RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory },
   . . .
RL-InformationList-RL-DeletionRqst
                                      ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRgst-
IEs} }
RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-DeletionRqst
                                      CRITICALITY notify TYPE RL-Information-RL-DeletionRgst PRESENCE mandatory
RL-Information-RL-DeletionRqst ::= SEQUENCE {
                           ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RADIO LINK DELETION RESPONSE
        RadioLinkDeletionResponse ::= SEQUENCE {
                                                       {{RadioLinkDeletionResponse-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-CriticalityDiagnostics
                                     CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                     PRESENCE optional },
   . . .
RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RADIO LINK RECONFIGURATION PREPARE FDD
RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
                                                               {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolIEs
                                   ProtocolIE-Container
    protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
                                                                                                                                  OPTIONAL,
    . . .
RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                       CRITICALITY reject TYPE AllowedOueuingTime
                                                                                               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
                                               CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepFDD
     ID id-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-CellID-Length
                                                           OPTIONAL,
    sSDT-CellIDLength
    s-FieldLength
                                   S-FieldLength
                                                           OPTIONAL,
                                   ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL.
    iE-Extensions
UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS
                                           OPTIONAL,
```

```
dl-DPCH-SlotFormat
                                   DL-DPCH-SlotFormat
                                                            OPTIONAL,
    nrOfDLchannelisationcodes
                                   NrOfDLchannelisationcodes OPTIONAL,
    t.FCI-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-LengthOfTFC12 CRITICALITY reject EXTENSION LengthOfTFC12 PRESENCE optional
DCH-DeleteList-RL-ReconfPrepFDD
                                           ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD
DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dch-td
                                    DCH-ID,
                                    ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-Information
                                        DSCH-ModifyInfo-RL-ReconfPrepFDD
                                                                           OPTIONAL,
    pdSCH-RL-ID
                                       RL-ID
                                                                    OPTIONAL,
    tFCS
                                       TFCS
                                                                    OPTIONAL,
                                       ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-Modify-RL-ReconfPrepFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::=
     ID id-EnhancedDSCHPCIndicator
                                           CRITICALITY ignore EXTENSION EnhancedDSCHPCIndicator PRESENCE optional |
    { ID id-EnhancedDSCHPC
                                           CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                                 PRESENCE conditional },
    -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
DSCH-ModifvInfo-RL-ReconfPrepFDD ::= SEOUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifvInformationItem-RL-ReconfPrepFDD
DSCH-ModifyInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dsch-ID
                                        DSCH-ID,
    trChSourceStatisticsDescriptor
                                       TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                       TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                       AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
                                                                        OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
```

```
ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
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 ::= SEOUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-DeleteInformationItem-RL-REconfPrepFDD
DSCH-DeleteInformationItem-RL-REconfPrepFDD ::= SEQUENCE {
    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 {
   rI.-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'
                                   ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
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.
                                           CRITICALITY ignore EXTENSION DL-Power
                                                                                            PRESENCE optional } |
     ID id-DLReferencePower
     ID id-RL-Specific-DCH-Info
                                            CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE optional }
     ID id-DL-DPCH-TimingAdjustment
                                            CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment PRESENCE optional }
     ID id-Oth-Parameter
                                            CRITICALITY ignore EXTENSION Oth-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-FDD-Information
                                                   CRITICALITY reject EXTENSION HSDSCH-FDD-Information
                                                                                                          PRESENCE optional } |
     ID id-HSDSCH-Information-to-Modify
                                                          CRITICALITY reject EXTENSION HSDSCH-Information-to-Modify PRESENCE optional }
     ID id-HSDSCH-MACdFlows-to-Add
                                                  CRITICALITY reject EXTENSION HSDSCH-MACdFlows-Information
                                                                                                               PRESENCE optional |
     ID id-HSDSCH-MACdFlows-to-Delete
                                                   CRITICALITY reject EXTENSION HSDSCH-MACdFlows-to-Delete PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                                          CRITICALITY reject EXTENSION RL-ID PRESENCE optional | |
     PRESENCE optional } |
Estimation
    { ID id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH CRITICALITY ignore EXTENSION UE-Support-Of-Dedicated-Pilots-For-
Channel-Estimation-Of-HS-DSCH PRESENCE optional },
         -- RADIO LINK RECONFIGURATION PREPARE TDD
  ******************
RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
   protocolIEs
                                                          {{RadioLinkReconfigurationPrepareTDD-IEs}},
                                ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}
                                                                                                                        OPTIONAL,
RadioLinkReconfigurationPrepareTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                    CRITICALITY reject TYPE AllowedQueuingTime
                                                                                        PRESENCE optional } |
     ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional
     ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                          CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                          CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional }
     ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                      CRITICALITY notify TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional
    ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                          CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                          CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional } |
     ID id-TDD-DCHs-to-Modify
                                CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                             PRESENCE optional
     ID id-DCHs-to-Add-TDD
                             CRITICALITY reject TYPE DCH-TDD-Information
                                                                             PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepTDD
                                           CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD
                                                                                                    PRESENCE optional } |
                                                                                                    PRESENCE optional }
     ID id-DSCH-ModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE DSCH-ModifyList-RL-ReconfPrepTDD
```

```
ID id-DSCHs-to-Add-TDD
                                  CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                      PRESENCE optional }
     ID id-DSCH-DeleteList-RL-ReconfPrepTDD
                                             CRITICALITY reject TYPE DSCH-DeleteList-RL-ReconfPrepTDD
                                                                                                       PRESENCE optional }
     ID id-USCH-ModifyList-RL-ReconfPrepTDD
                                             CRITICALITY reject TYPE USCH-ModifyList-RL-ReconfPrepTDD
                                                                                                       PRESENCE optional
     ID id-USCHs-to-Add
                              CRITICALITY reject TYPE USCH-Information
                                                                               PRESENCE optional } |
     ID id-USCH-DeleteList-RL-ReconfPrepTDD
                                             CRITICALITY reject TYPE USCH-DeleteList-RL-ReconfPrepTDD
                                                                                                       PRESENCE optional },
UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                 ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    UL-CCTrCH-AddInformation-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   t.FCS
                              TFCS,
   tFCI-Coding
                              TFCI-Coding,
   punctureLimit
                                  PunctureLimit.
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget
                              CRITICALITY reject
                                                    EXTENSION
                                                                               PRESENCE optional } |
                                                                    UL-SIR
   -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR PRESENCE optional
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                    ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD PRESENCE
mandatory }
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   t FCS
                              TFCS
                                         OPTIONAL,
   tFCI-Coding
                              TFCI-Coding
                                                     OPTIONAL,
   punctureLimit
                                 PunctureLimit
                                                            OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget
                              CRITICALITY reject
                                                     EXTENSION
                                                                    UL-SIR
                                                                               PRESENCE optional } |
   -- This IE shall be applicable for 1.28Mcps TDD only.
```

```
optional },
   -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                          ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                        CCTrCH-ID,
                            ProtocolExtensionContainer { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                        ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
                         CCTrCH-ID,
   cCTrCH-ID
   tFCS
                         TFCS,
   tFCI-Coding
                         TFCI-Coding,
   punctureLimit
                           PunctureLimit,
   cCTrCH-TPCList
                            CCTrCH-TPCAddList-RL-ReconfPrepTDD OPTIONAL,
                            ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional
      },
CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD
CCTrCH-TPCAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   iE-Extensions
                            ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
```

```
CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                           ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
ModifyInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                      CCTrCH-ID,
   t.FCS
                       TFCS
                                  OPTIONAL,
   tFCI-Coding
                       TFCI-Coding
                                           OPTIONAL,
   punctureLimit
                         PunctureLimit
                                                  OPTIONAL,
                            CCTrCH-TPCModifyList-RL-ReconfPrepTDD
   cCTrCH-TPCList
                                                               OPTIONAL.
   iE-Extensions
                            ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   optional},
   . . .
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
                              ::= SEOUENCE {
   cCTrCH-ID
                            ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
   iE-Extensions
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                          ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
DeleteInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                         CCTrCH-ID,
   iE-Extensions
                            ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
```

```
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepTDD
                                            ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD
DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID
                                        DSCH-ID.
    dl-ccTrCHID
                                        CCTrCH-ID
                                                                        OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
    bler
                                        BLER
                                                                        OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
                                    ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                            PRESENCE optional } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION BindingID
                                                                                                         PRESENCE optional } |
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                                                                       optional },
                                                                    EXTENSION TransportLayerAddress
                                                                                                           PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD
DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEOUENCE {
    dscH-ID
   iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD
USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID
                                        USCH-ID.
    ul-ccTrCHID
                                        CCTrCH-ID
                                                                        OPTIONAL.
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
                                                                        OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    rb-Info
                                        RB-Info
                                                                        OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                            PRESENCE optional } |
    { ID id-BindingID
                                    CRITICALITY ignore 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.
    { ID id-TnlQos
                                        CRITICALITY
                                                                    EXTENSION
                                                                                TnlQos
                                                                                            PRESENCE
                                                                                                           optional },
    . . .
USCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-DeleteItem-RL-ReconfPrepTDD
USCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID
                                    ProtocolExtensionContainer { {USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD
                                                                CRITICALITY ignore
                                                                                        EXTENSION
                                                                                                     PrimaryCCPCH-RSCP PRESENCE optional } |
                                                                                                     DL-TimeSlot-ISCP-Info PRESENCE optional }
     ID id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD
                                                                CRITICALITY ignore
                                                                                        EXTENSION
     ID id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD CRITICALITY ignore
                                                                                        EXTENSION
                                                                                                     DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional }
     ID id-HSDSCH-TDD-Information
                                                                CRITICALITY reject
                                                                                        EXTENSION HSDSCH-TDD-Information
                                                                                                                             PRESENCE optional } |
     ID id-HSDSCH-Information-to-Modify
                                                                CRITICALITY reject
                                                                                        EXTENSION HSDSCH-Information-to-Modify
                                                                                                                                  PRESENCE
optional}|
     ID id-HSDSCH-MACdFlows-to-Add
                                                CRITICALITY reject
                                                                        EXTENSION HSDSCH-MACdFlows-Information
                                                                                                                          PRESENCE optional |
     ID id-HSDSCH-MACdFlows-to-Delete
                                                CRITICALITY reject
                                                                        EXTENSION HSDSCH-MACdFlows-to-Delete
                                                                                                                    PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                                CRITICALITY reject
                                                                        EXTENSION RL-ID
                                                                                                     PRESENCE optional } |
     ID id-PDSCH-RL-ID
                                    CRITICALITY ignore
                                                                EXTENSION RL-ID
                                                                                    PRESENCE optional }
     ID id-UL-Synchronisation-Parameters-LCR
                                                       CRITICALITY ignore
                                                                                EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                                   PRESENCE
    optional | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
     ID id-RL-Information-RL-ReconfPrepTDD
                                                CRITICALITY ignore
                                                                        EXTENSION RL-Information-RL-ReconfPrepTDD
                                                                                                                                   optional }|
                                                                                                                      PRESENCE
    ID id-PrimaryCCPCH-RSCP-Delta
                                        CRITICALITY ignore
                                                                EXTENSION PrimaryCCPCH-RSCP-Delta
                                                                                                        PRESENCE
                                                                                                                    optional },
```

```
RL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-InformationIE-RL-ReconfPrepTDD
RL-InformationIE-RL-ReconfPrepTDD ::= SEQUENCE {
   rL-Specific-DCH-Info
                                RL-Specific-DCH-Info
                                                           OPTIONAL,
                                ProtocolExtensionContainer { { RL-InformationIE-RL-ReconfPrepTDD-ExtIEs} }
   iE-Extensions
                                                                                                 OPTIONAL,
RL-InformationIE-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
           -- RADIO LINK RECONFIGURATION READY FDD
__ *********************
RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
   protocolIEs
                             ProtocolIE-Container
                                                    {{RadioLinkReconfigurationReadyFDD-IEs}},
   protocolExtensions
                             ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}
                                                                                                          OPTIONAL,
RadioLinkReconfigurationReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
   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 ::= {
   PRESENCE
mandatory }
RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEOUENCE
   rL-ID
                             RL-ID,
   max-UL-SIR
                             UL-SIR
                                           OPTIONAL,
   min-UL-SIR
                                           OPTIONAL,
                             UL-SIR
   maximumDLTxPower
                                           OPTIONAL,
                             DL-Power
   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-RL-ReconfReadyFDD
   dSCHsToBeAddedOrModified
                                                                     OPTIONAL,
```

```
ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DL-PowerBalancing-UpdatedIndicator
                                                     CRITICALITY ignore EXTENSION DL-PowerBalancing-UpdatedIndicator PRESENCE optional |
     ID id-Primary-CPICH-Usage-For-Channel-Estimation CRITICALITY ignore EXTENSION Primary-CPICH-Usage-For-Channel-Estimation PRESENCE
    { ID id-Secondary-CPICH-Information-Change
                                                     CRITICALITY ignore EXTENSION Secondary-CPICH-Information-Change
                                                                                                                             PRESENCE
optional },
DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}
DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
                                                         ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }
DCH-InformationResponseList-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 ignore EXTENSION HSDSCH-RNTI
ID id-HSDSCH-FDD-Information-Response CRITICALITY ignore EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                 PRESENCE optional }
                                                                                                                 PRESENCE optional }
    { ID id-MAChs-ResetIndicator
                                              CRITICALITY ignore
                                                                     EXTENSION MAChs-ResetIndicator
                                                                                                                 PRESENCE optional },
    *****************
-- RADIO LINK RECONFIGURATION READY TDD
RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkReconfigurationReadyTDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}
   protocolExtensions
                                                                                                                            OPTIONAL,
RadioLinkReconfigurationReadyTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                          CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfReadyTDD PRESENCE optional
```

```
--This RL-InformationResponse-RL-ReconfReadyTDD is for the first RL repetition in the list.
    --Repetitions 2 and on are defined in Multiple-RL-InformationResponse-RL-ReconfReadyTDD.
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
                                  RL-ID,
   max-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   maximumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
   minimumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
    secondary-CCPCH-Info-TDD
                                  Secondary-CCPCH-Info-TDD
                                                             OPTIONAL.
    ul-CCTrCH-Information
                                  UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                                                OPTIONAL.
   dl-CCTrCH-Information
                                  DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
   dCHInformationResponse
                                  DCH-InformationResponseList-RL-ReconfReadyTDD
                                                                                OPTIONAL,
    dSCHsToBeAddedOrModified
                                  DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                            OPTIONAL,
    uSCHsToBeAddedOrModified
                                  USCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                            OPTIONAL,
                                  ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-TimingAdvanceCtrl-LCR
                                             CRITICALITY ignore EXTENSION
                                                                            UL-TimingAdvanceCtrl-LCR
                                                                                                         PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
                                                  ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
UL-CCTrCH-InformationList-RL-ReconfReadyTDD
UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                                  CCTrCH-ID,
    ul-DPCH-AddInformation
                                  UL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                        OPTIONAL,
    --For 3.84Mcps TDD only
    ul-DPCH-ModifyInformation
                                  UL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                            OPTIONAL,
    --For 3.84Mcps TDD only
   ul-DPCH-DeleteInformation
                                  UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                            OPTIONAL,
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                    EXTENSION
                                                                                                UL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD
                   PRESENCE optional },
    --For 1.28Mcps TDD only
```

```
UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod.
   repetitionLength
                                  RepetitionLength,
    t.DD-DPCHOffset.
                                  TDD-DPCHOffset.
   uL-TimeslotLCR-Info
                                 UL-TimeslotLCR-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-DPCH-LCR-InformationAddItem-RL-ReconfreadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore TYPE UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD
                                                                                                                                 PRESENCE
optional }
UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
   tDD-DPCHOffset
                                  TDD-DPCHOffset,
   rxTimingDeviationForTA
                                  RxTimingDeviationForTA
                                                                OPTIONAL.
   uL-Timeslot-Information
                                  UL-Timeslot-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod
                                                            OPTIONAL,
   repetitionLength
                                 RepetitionLength
                                                            OPTIONAL.
   tDD-DPCHOffset
                                 TDD-DPCHOffset
                                                            OPTIONAL,
    uL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                            UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                                   OPTIONAL,
    --For 3.84Mcps TDD only
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
{ ID id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                            EXTENSION UL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                   PRESENCE optional },
    --For 1.28Mcps TDD only
UL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR
                                   TimeSlotLCR,
    midambleShiftLCR
                                   MidambleShiftLCR
                                                                OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    tDD-uL-Code-LCR-Information
                                        TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                                    OPTIONAL.
                                    ProtocolExtensionContainer { {UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
                                   DPCH-ID,
    tDD-ChannelisationCodeLCR
                                        TDD-ChannelisationCodeLCR
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD CRITICALITY
                                                                                       reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR
PRESENCE optional },
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot.
    midambleShiftAndBurstType
                                                MidambleShiftAndBurstType
                                                                                    OPTIONAL,
    tFCI-Presence
                                   TFCI-Presence
                                                           OPTIONAL,
                               TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD
    uL-Code-Information
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD
```

```
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
                              DPCH-ID.
   tDD-ChannelisationCode
                              TDD-ChannelisationCode
                                                      OPTIONAL.
   iE-Extensions
                              ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                           DPCH-ID,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
DL-CCTrCH-InformationList-RL-ReconfReadyTDD
DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                               CCTrCH-ID.
   dl-DPCH-AddInformation
                              DL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                               OPTIONAL,
   --For 3.84Mcps TDD only
                              DL-DPCH-InformationModifyList-RL-ReconfReadyTDD
   dl-DPCH-ModifyInformation
                                                                               OPTIONAL.
   --For 3.84Mcps TDD only
   dl-DPCH-DeleteInformation
                              DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                               OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   . . .
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   DL-DPCH-LCR-InformationAddList-RL-
                                                                               EXTENSION
                 PRESENCE optional |
ReconfReadyTDD
```

```
--For 1.28Mcps TDD only
    { ID id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD
                                                         CRITICALITY ignore EXTENSION DL-Power
                                                                                                              PRESENCE optional } |
    -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
    { ID id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD
                                                         CRITICALITY ignore EXTENSION DL-Power
                                                                                                              PRESENCE optional },
    -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
    tDD-DPCHOffset
                                  TDD-DPCHOffset,
   dL-TimeslotLCR-Info
                                  DL-TimeslotLCR-Information,
   iE-Extensions
                                  ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore TYPE DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD
                                                                                                                                 PRESENCE
mandatory }
DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
    tDD-DPCHOffset
                                  TDD-DPCHOffset,
   dL-Timeslot-Information
                                  DL-Timeslot-Information,
                                  ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE
   repetitionPeriod
                                  RepetitionPeriod
                                                            OPTIONAL,
   repetitionLength
                                  RepetitionLength
                                                            OPTIONAL,
    tDD-DPCHOffset
                                  TDD-DPCHOffset
                                                             OPTIONAL,
   {\tt dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD}
                                                            DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                                   OPTIONAL,
    --For 3.84Mcps TDD only
```

```
ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                         EXTENSION DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                   PRESENCE optional },
    --For 1.28Mcps TDD only
DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR
                                  TimeSlotLCR,
   midambleShiftLCR
                                  MidambleShiftLCR
                                                              OPTIONAL
    t.FCI-Presence
                                  TFCI-Presence
                                                          OPTIONAL,
    tDD-dL-Code-LCR-Information
                                  TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                              OPTIONAL,
                                   ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                                  DPCH-ID,
    tDD-ChannelisationCodeLCR
                                  TDD-ChannelisationCodeLCR
                                                                  OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { {TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD CRITICALITY ignore EXTENSION
                                                                                                               DL-Power
                                                                                                                           PRESENCE optional }
    EXTENSION
                                                                                                               DL-Power
                                                                                                                           PRESENCE optional },
    . . .
DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE
   timeSlot
                                  TimeSlot,
   midambleShiftAndBurstType
                                  MidambleShiftAndBurstType
                                                                     OPTIONAL,
    tFCI-Presence
                                  TFCI-Presence
                                                          OPTIONAL,
   dL-Code-Information
                                  TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                             OPTIONAL,
                                   ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEOUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
                             DPCH-ID,
   tDD-ChannelisationCode
                             TDD-ChannelisationCode
                                                     OPTIONAL,
   iE-Extensions
                             ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   PRESENCE optional },
   . . .
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                          DPCH-ID,
   iE-Extensions
                             ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                 ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }
DCH-InformationResponseList-RL-ReconfReadyTDD
DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DCH-InformationResponse
                                 CRITICALITY ignore TYPE DCH-InformationResponse
                                                                               PRESENCE mandatory
                                           ::= ProtocolIE-Single-Container { {DSCHToBeAddedOrModifiedIEs-RL-ReconfReadvTDD} }
DSCHToBeAddedOrModified-RL-ReconfReadvTDD
DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   mandatory }
DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
```

```
dsch-ID
                       DSCH-ID,
   transportFormatManagement TransportFormatManagement,
   dSCH-FlowControlInformation DSCH-FlowControlInformation.
   bindingID
                       BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
                       ProtocolExtensionContainer { {DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
USCHToBeAddedOrModified-RL-ReconfReadyTDD
                                           ::= ProtocolIE-Single-Container { { USCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD}
}USCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
USCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
   11SCH-TD
                       USCH-ID,
   transportFormatManagement TransportFormatManagement,
   bindingID
                       BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
   iE-Extensions
                       ProtocolExtensionContainer { {USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   . . .
USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-HSDSCH-RNTI
                                        CRITICALITY ignore EXTENSION HSDSCH-RNTI
                                                                                                    PRESENCE optional }
    ID id-DSCH-RNTI
                                        CRITICALITY ignore EXTENSION DSCH-RNTI
                                                                                                    PRESENCE optional }
     ID id-HSDSCH-TDD-Information-Response
                                        CRITICALITY ignore
                                                                                                    PRESENCE optional }
                                                            EXTENSION HSDSCH-TDD-Information-Response
    ID id-MAChs-ResetIndicator
                                        CRITICALITY ignore
                                                                                                    PRESENCE optional }
                                                             EXTENSION MAChs-ResetIndicator
   EXTENSION Multiple-RL-InformationResponse-RL-
              PRESENCE optional },
ReconfReadyTDD
-- This is for RL repetitions 2 and on in RL list.
Multiple-RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-InformationResponse-RL-ReconfReadyTDD
  *****************
-- RADIO LINK RECONFIGURATION COMMIT
  **************************
```

```
RadioLinkReconfigurationCommit ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{RadioLinkReconfigurationCommit-IEs}},
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}
   protocolExtensions
                                                                                                                     OPTIONAL.
RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
                             CRITICALITY ignore TYPE CFN
                                                                          PRESENCE mandatory } |
    { ID id-Active-Pattern-Sequence-Information
                                                CRITICALITY ignore TYPE Active-Pattern-Sequence-Information PRESENCE optional \\ \}, --FDD only
   . . .
RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  RADIO LINK RECONFIGURATION FAILURE
   RadioLinkReconfigurationFailure ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{RadioLinkReconfigurationFailure-IEs}},
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL,
   . . .
RadioLinkReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-ReconfFailure
                                        CRITICALITY ignore TYPE CauseLevel-RL-ReconfFailure PRESENCE mandatory } |
     ID id-CriticalityDiagnostics
                                        CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                          PRESENCE optional },
CauseLevel-RL-ReconfFailure ::= CHOICE {
   generalCause
                      GeneralCauseList-RL-ReconfFailure,
   rLSpecificCause
                      RLSpecificCauseList-RL-ReconfFailure,
GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
   cause
                                            Cause.
   iE-Extensions
                                            ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }
                                                                                                                        OPTIONAL,
GeneralCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
   rL-ReconfigurationFailureList-RL-ReconfFailure
                                                    RL-ReconfigurationFailureList-RL-ReconfFailure
   iE-Extensions
                                                    OPTIONAL,
```

```
RLSpecificCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-ReconfigurationFailureList-RL-Reconffailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }
RL-ReconfigurationFailure-RL-ReconfFailure-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore TYPE RL-ReconfigurationFailure-RL-ReconfFail PRESENCE mandatory }
RL-ReconfigurationFailure-RL-ReconfFail ::= SEOUENCE {
   rL-ID
                            RL-ID,
   cause
                                ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION CANCEL
  *****************
RadioLinkReconfigurationCancel ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{RadioLinkReconfigurationCancel-IEs}},
                                ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
   protocolExtensions
                                                                                                                   OPTIONAL,
RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    **************
-- RADIO LINK RECONFIGURATION REQUEST FDD
__ ***********************
```

```
RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkReconfigurationRequestFDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                             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-ReconfRqstFDDPRESENCE 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
     PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfRqstFDD
                                             CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstFDD
                                                                                                        PRESENCE optional } |
     ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    . . .
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
   t FCS
                                  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,
                                  ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRqstFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
   dCH-ID
                                  DCH-ID,
   iE-Extensions
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRgstFDD-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 } |
     ID id-HSDSCH-FDD-Information
                                                 CRITICALITY reject EXTENSION HSDSCH-FDD-Information
                                                                                                                   PRESENCE optional |
    ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject
                                                                            EXTENSION HSDSCH-Information-to-Modify-Unsynchronised PRESENCE
optional}
     ID id-HSDSCH-MACdFlows-to-Add
                                                                                                                   PRESENCE optional } |
                                                 CRITICALITY reject
                                                                        EXTENSION HSDSCH-MACdFlows-Information
     ID id-HSDSCH-MACdFlows-to-Delete
                                                 CRITICALITY reject
                                                                        EXTENSION HSDSCH-MACdFlows-to-Delete
                                                                                                                   PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                                 CRITICALITY reject
                                                                        EXTENSION RL-ID
                                                                                                                   PRESENCE optional },
RL-ReconfigurationRequestFDD-RL-InformationList ::= SEOUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }
RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE
optional }
RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
                          RL-ID.
   rL-Specific-DCH-Info
                          RL-Specific-DCH-Info OPTIONAL,
   iE-Extensions
                          RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION REQUEST TDD
         ****************
RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
                                                            {{RadioLinkReconfigurationRequestTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                            OPTIONAL,
    . . .
RadioLinkReconfigurationRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                     CRITICALITY reject TYPE AllowedQueuingTime
                                                                                           PRESENCE optional } |
    { ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                            CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                            CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD PRESENCE
optional } |
```

```
{ ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                       CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional } |
   { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                       CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD PRESENCE
optional } |
     ID id-TDD-DCHs-to-Modify
                               CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                         PRESENCE optional
                         CRITICALITY reject TYPE DCH-TDD-Information
     ID id-DCHs-to-Add-TDD
                                                                         PRESENCE optional
   { ID id-DCH-DeleteList-RL-ReconfRgstTDD
                                         CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRgstTDD
                                                                                               PRESENCE optional },
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
UL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD
InformationModifyList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IES RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD ::= SEQUENCE {
                           CCTrCH-ID,
   cCTrCH-ID
   t FCS
                           TFCS
                                      OPTIONAL,
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget
                         CRITICALITY reject
                                              EXTENSION
                                                                       PRESENCE optional },
                                                            UL-SIR
   -- Applicable to 1.28Mcps TDD only
   . . .
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
                                                             CRITICALITY notify TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD PRESENCE
mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
                              CCTrCH-ID,
    t FCS
                              TFCS
                                          OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                      ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
                                                            CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD PRESENCE
mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD ::= SEOUENCE {
                              CCTrCH-ID,
   cCTrCH-ID
                                   ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DCH-DeleteList-RL-ReconfRqstTDD
                                          ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD
DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   dCH-ID
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  EXTENSION Multiple-RL-ReconfigurationRequestTDD-RL-Information
   PRESENCE
               optional}|
     ID id-HSDSCH-TDD-Information
                                              CRITICALITY reject
                                                                      EXTENSION HSDSCH-TDD-Information
                                                                                                                   PRESENCE optional } |
    { ID id-HSDSCH-Information-to-Modify-Unsynchronised CRITICALITY reject
                                                                             EXTENSION HSDSCH-Information-to-Modify-Unsynchronised PRESENCE
optional}
     ID id-HSDSCH-MACdFlows-to-Add
                                              CRITICALITY reject
                                                                      EXTENSION HSDSCH-MACdFlows-Information
                                                                                                                     PRESENCE optional |
     ID id-HSDSCH-MACdFlows-to-Delete
                                                                      EXTENSION HSDSCH-MACdFlows-to-Delete
                                                                                                                   PRESENCE optional |
                                              CRITICALITY reject
                                                                                                                   PRESENCE optional },
     ID id-HSPDSCH-RL-ID
                                              CRITICALITY reject
                                                                      EXTENSION RL-ID
```

```
Multiple-RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-ReconfigurationRequestTDD-RL-Information
RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
   rL-ID
                          RL-ID,
   rL-Specific-DCH-Info
                         RL-Specific-DCH-Info OPTIONAL,
   iE-Extensions
                          ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ReconfigurationRequestTDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
          id-UL-Synchronisation-Parameters-LCR
                                                        CRITICALITY ignore
                                                                               EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                             PRESENCE
   optional }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
  -- RADIO LINK RECONFIGURATION RESPONSE FDD
  RadioLinkReconfigurationResponseFDD ::= SEQUENCE {
                                 ProtocolIE-Container
                                                            {{RadioLinkReconfigurationResponseFDD-IEs}},
   protocolIEs
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                            OPTIONAL,
RadioLinkReconfigurationResponseFDD-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationResponseList-RL-ReconfRspFDD
                                                        CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfRspFDD
                                                                                                                             PRESENCE
optional
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
   { ID id-CriticalityDiagnostics
                                                                                            PRESENCE optional },
                                             ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
RL-InformationResponseList-RL-ReconfRspFDD
ReconfRspFDD-IEs} }
RL-InformationResponse-RL-ReconfRspFDD-IEs RNSAP-PROTOCOL-IES ::= {
                                                        CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRspFDD
   { ID id-RL-InformationResponseItem-RL-ReconfRspFDD
                                                                                                                          PRESENCE
mandatory }
RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
   rL-ID
                                 RL-ID,
                                 UL-SIR
                                                 OPTIONAL,
   max-UL-SIR
   min-UL-SIR
                                 UL-SIR
                                                 OPTIONAL,
   maximumDLTxPower
                                 DL-Power
                                                 OPTIONAL,
   minimumDLTxPower
                                 DL-Power
                                                 OPTIONAL,
   secondary-CCPCH-Info
                                 Secondary-CCPCH-Info
                                                            OPTIONAL,
                                 DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
   dCHsInformationResponseList
   dL-CodeInformationList-RL-ReconfResp
                                        DL-CodeInformationList-RL-ReconfRspFDD OPTIONAL,
```

```
ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator CRITICALITY ignore
                                                                                    DL-PowerBalancing-UpdatedIndicator
                                                                                                                          PRESENCE optional },
                                                                     EXTENSION
DCH-InformationResponseList-RL-ReconfRspFDD
                                                     ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }
DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse
                                      CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                            PRESENCE mandatory }
DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}
DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                    PRESENCE optional }
RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-RNTI
                                              CRITICALITY ignore
                                                                     EXTENSION HSDSCH-RNTI
                                                                                                                  PRESENCE optional }
                                              CRITICALITY ignore
     ID id-HSDSCH-FDD-Information-Response
                                                                     EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                  PRESENCE optional }
                                                                                                                  PRESENCE optional },
     ID id-MAChs-ResetIndicator
                                              CRITICALITY ignore
                                                                     EXTENSION MAChs-ResetIndicator
    ******************
-- RADIO LINK RECONFIGURATION RESPONSE TDD
   RadioLinkReconfigurationResponseTDD ::= SEOUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{RadioLinkReconfigurationResponseTDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}
                                                                                                                               OPTIONAL,
RadioLinkReconfigurationResponseTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfRspTDD
                                                     CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfRspTDD
                                                                                                                          PRESENCE optional
    --This RL-InformationResponse-RL-ReconfRspTDD is for the first RL repetition in the list.
    --Repetitions 2 and on are defined in Multiple-RL-InformationResponse-RL-ReconfRspTDD.
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
    { ID id-CriticalityDiagnostics
                                                                                              PRESENCE optional },
    . . .
RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   max-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   maximumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
```

```
minimumDLTxPower
                                                 OPTIONAL,
                                  DL-Power
   dCHsInformationResponseList
                                  DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-CCTrCH-InformationList-RL-ReconfRspTDD CRITICALITY ignore EXTENSION DL-CCTrCH-InformationList-RL-ReconfRspTDD PRESENCE optional
    { ID id-UL-TimingAdvanceCtrl-LCR
                                                     CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                                              PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
DL-CCTrCH-InformationList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfRspTDD
DL-CCTrCH-InformationItem-RL-ReconfRspTDD ::= SEQUENCE {
   cCTrCH-ID
   dl-DPCH-ModifyInformation-LCR
                                             DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD
                                                                                                   OPTIONAL,
   --For 1.28Mcps TDD only
   cCTrCH-Maximum-DL-Power
                                             DL-Power
                                                                    OPTIONAL,
    --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
   cCTrCH-Minimum-DL-Power
                                             DL-Power
                                                                    OPTIONAL,
    --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
   iE-Extensions
                                             ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs} }
                                                                                                                               OPTIONAL,
DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD }}
DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    {ID id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD CRITICALITY ignore TYPE DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD
   PRESENCE optional },
    . . .
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD ::= SEQUENCE {
  dL-Timeslot-LCR-InformationModifyList-RL-ReconfRqstTDD
                                                             DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD
                                                                                                                      OPTIONAL.
  OPTIONAL,
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-Timeslot-LCR-InformationModifyItem-RL-
ReconfRspTDD
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD
                                                     ::= SEOUENCE
```

```
timeSlotLCR
                                        TimeSlotLCR,
   maxPowerLCR
                                        DL-Power
                                                   OPTIONAL.
   minPowerLCR
                                        DL-Power
                                                    OPTIONAL.
   iE-Extensions
                                        ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs} }
   OPTIONAL,
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfRspTDD
                                                   ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspTDD} }
DCH-InformationResponseListIEs-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY ignore TYPE DCH-InformationResponse
                                                                               PRESENCE optional }
RadioLinkReconfigurationResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-RNTI
                                            CRITICALITY ignore
                                                                  EXTENSION HSDSCH-RNTI
                                                                                                              PRESENCE optional }
     ID id-HSDSCH-TDD-Information-Response
                                            CRITICALITY ignore
                                                                  EXTENSION HSDSCH-TDD-Information-Response
                                                                                                             PRESENCE optional }
     ID id-MAChs-ResetIndicator
                                            CRITICALITY ignore
                                                                                                              PRESENCE optional }
                                                                  EXTENSION MAChs-ResetIndicator
    EXTENSION Multiple-RL-InformationResponse-RL-ReconfRspTDD
   PRESENCE optional },
Multiple-RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF RL-InformationResponse-RL-ReconfRspTDD
--Includes the 2nd through the max number of radio link information repetitions.
-- RADIO LINK FAILURE INDICATION
  RadioLinkFailureIndication ::= SEQUENCE {
                                 ProtocolIE-Container
                                                           {{RadioLinkFailureIndication-IEs}},
   protocolIEs
                                 ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                  OPTIONAL,
   . . .
RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-Reporting-Object-RL-FailureInd CRITICALITY ignore TYPE Reporting-Object-RL-FailureInd
                                                                                                PRESENCE mandatory },
   . . .
Reporting-Object-RL-FailureInd ::= CHOICE {
   rL
                         RL-RL-FailureInd,
   rL-Set
                         RL-Set-RL-FailureInd, --FDD only
   . . . ,
   cCTrCH
                         CCTrCH-RL-FailureInd --TDD only
```

```
RL-RL-FailureInd
                           ::= SEOUENCE {
    rL-InformationList-RL-FailureInd
                                            RL-InformationList-RL-FailureInd.
    iE-Extensions
                                            ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-FailureInd
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs}
RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-FailureInd
                                                                                                          PRESENCE mandatory
                                           CRITICALITY ignore TYPE RL-Information-RL-FailureInd
RL-Information-RL-FailureInd ::= SEOUENCE {
                                RL-ID,
    cause
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-FailureInd
                               ::= SEQUENCE {
    rL-Set-InformationList-RL-FailureInd
                                           RL-Set-InformationList-RL-FailureInd,
                                            ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-FailureInd
                                                ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
FailureInd-IEs} }
RL-Set-Information-RL-FailureInd-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Information-RL-FailureInd
                                                   CRITICALITY ignore TYPE RL-Set-Information-RL-FailureInd PRESENCE mandatory }
RL-Set-Information-RL-FailureInd ::= SEQUENCE {
   rL-Set-ID
                                   RL-Set-ID,
    cause
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-FailureInd ::= SEQUENCE {
                                         RL-ID,
   cCTrCH-InformationList-RL-FailureInd
                                         CCTrCH-InformationList-RL-FailureInd,
                                      ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }
   iE-Extensions
                                                                                                   OPTIONAL,
CCTrCHItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-FailureInd ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}
CCTrCH-InformationItemIE-RL-FailureInd RNSAP-PROTOCOL-IES ::= {
   { ID id-CCTrCH-InformationItem-RL-FailureInd
                                                   CRITICALITY
                                                                               TYPE CCTrCH-InformationItem-RL-FailureInd
                                                                 ignore
   PRESENCE
             mandatory}
CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
   cCTrCH-ID
                                         CCTrCH-ID,
   cause
                                         Cause,
                                         ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }
   iE-Extensions
                                                                                                                OPTIONAL,
CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RADIO LINK PREEMPTION REQUIRED INDICATION
__ ********************************
RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
                                                      {{RadioLinkPreemptionRequiredIndication-IEs}},
   protocolIEs
                              ProtocolIE-Container
                              ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
RadioLinkPreemptionRequiredIndication-IEs RNSAP-PROTOCOL-IES ::= {
```

```
::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
RL-InformationList-RL-PreemptRequiredInd
PreemptRequiredInd} }
RL-InformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-RL-PreemptRequiredInd
                                                      CRITICALITY ignore TYPE RL-InformationItem-RL-PreemptRequiredInd
                                                                                                                      PRESENCE
mandatory }
RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
   iE-Extensions
                            ProtocolExtensionContainer { {RL-Information-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
   . . .
RL-Information-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkPreemptionRequiredIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::=
   PreemptRequiredInd PRESENCE optional },
HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd ::= SEQUENCE (SIZE (1.. maxNrOfMACdFlows)) OF ProtocolIE-Single-Container
{HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd}
HSDSCHMacdFlowSpecificInformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
   { ID id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd
                                                                  CRITICALITY ignore TYPE HSDSCHMacdFlowSpecificInformationItem-RL-
PreemptRequiredInd PRESENCE mandatory }
HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                       HSDSCH-MACdFlow-ID,
   iE-Extensions
                             ProtocolExtensionContainer { { HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL.
HSDSCHMacdFlowSpecificInformation-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RESTORE INDICATION
  ******************
RadioLinkRestoreIndication ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{RadioLinkRestoreIndication-IEs}},
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}
                                                                                                               OPTIONAL,
```

```
RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory },
   . . .
Reporting-Object-RL-RestoreInd ::= CHOICE {
   rL
                          RL-RL-RestoreInd, --TDD only
   rL-Set
                          RL-Set-RL-RestoreInd, --FDD only
    . . . ,
   cCTrCH
                          CCTrCH-RL-RestoreInd --TDD only
RL-RL-RestoreInd ::= SEOUENCE {
   rL-InformationList-RL-RestoreInd
                                         RL-InformationList-RL-RestoreInd,
                                         ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-RestoreInd-IEs}
RL-InformationList-RL-RestoreInd
RL-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-RestoreInd
                                             CRITICALITY ignore TYPE RL-Information-RL-RestoreInd
                                                                                                     PRESENCE mandatory
RL-Information-RL-RestoreInd ::= SEQUENCE {
   rL-ID
                                  ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-RestoreInd ::= SEOUENCE {
   rL-Set-InformationList-RL-RestoreInd
                                         RL-Set-InformationList-RL-RestoreInd,
                                         ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                             ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RL-Set-InformationList-RL-RestoreInd
RestoreInd-IEs} }
RL-Set-Information-RL-RestoreInd-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Set-Information-RL-RestoreInd
                                                CRITICALITY ignore TYPE RL-Set-Information-RL-RestoreInd PRESENCE mandatory
```

```
RL-Set-Information-RL-RestoreInd ::= SEQUENCE {
   rL-Set-ID
   iE-Extensions
                               ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-RestoreInd ::= SEQUENCE {
                                          RL-ID,
   cCTrCH-InformationList-RL-RestoreInd
                                          CCTrCH-InformationList-RL-RestoreInd,
                                      ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }
                                                                                                      OPTIONAL,
   iE-Extensions
CCTrCHItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}
CCTrCH-InformationItemIE-RL-RestoreInd RNSAP-PROTOCOL-IES ::= {
   { ID id-CCTrCH-InformationItem-RL-RestoreInd
                                                    CRITICALITY
                                                                                TYPE CCTrCH-InformationItem-RL-RestoreInd
                                                                   ignore
   PRESENCE mandatory }
CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
   cCTrCH-ID
                                              CCTrCH-ID,
                                          iE-Extensions
                                                                                                                   OPTIONAL,
CCTrCH-InformationItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  -- DOWNLINK POWER CONTROL REQUEST
__ ***********************
DL-PowerControlRequest ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{DL-PowerControlRequest-IEs}},
                               ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
```

```
DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-PowerAdjustmentType
                                      CRITICALITY ignore TYPE PowerAdjustmentType
                                                                                               PRESENCE mandatory }
    { ID id-DLReferencePower
                                      CRITICALITY ignore TYPE DL-Power
                                                                                               PRESENCE conditional }
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    { ID id-InnerLoopDLPCStatus
                               CRITICALITY ignore TYPE InnerLoopDLPCStatus
                                                                                               PRESENCE optional }
    { ID id-DLReferencePowerList-DL-PC-Rqst
                                              CRITICALITY ignore TYPE DL-ReferencePowerInformationList-DL-PC-Rgst PRESENCE conditional \
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
                                      CRITICALITY ignore TYPE MaxAdjustmentStep
   { ID id-MaxAdjustmentStep
                                                                                         PRESENCE conditional }
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod
                                      CRITICALITY ignore TYPE AdjustmentPeriod
                                                                                         PRESENCE conditional } |
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
   { ID id-AdjustmentRatio
                            CRITICALITY ignore TYPE ScaledAdjustmentRatio
                                                                                         PRESENCE conditional },
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
DL-ReferencePowerInformationList-DL-PC-Rgst
                                                  ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {DL-
ReferencePowerInformation-DL-PC-Rgst-IEs} }
DL-ReferencePowerInformation-DL-PC-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformation-DL-PC-Rgst CRITICALITY ignore TYPE DL-ReferencePowerInformation-DL-PC-Rgst PRESENCE mandatory }
DL-ReferencePowerInformation-DL-PC-Rgst ::= SEQUENCE {
                              RL-ID.
   dl-Reference-Power
                                   ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- DOWNLINK POWER TIMESLOT CONTROL REQUEST TDD
__ *********************
DL-PowerTimeslotControlRequest ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{DL-PowerTimeslotControlRequest-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}
                                                                                                                           OPTIONAL,
DL-PowerTimeslotControlRequest-IEs RNSAP-PROTOCOL-IES ::=
```

```
-- Mandatory for 3.84Mcps TDD only
DL-PowerTimeslotControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD CRITICALITY
                                                           ignore EXTENSION
                                                                           DL-TimeSlot-ISCP-LCR-Information PRESENCE optional |
   --Mandatory for 1.28Mcps TDD only
   { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD
                                             CRITICALITY ignore
                                                                  EXTENSION PrimaryCCPCH-RSCP
                                                                                                 PRESENCE optional } |
    ID id-PrimaryCCPCH-RSCP-Delta
                                CRITICALITY ignore
                                                       EXTENSION PrimaryCCPCH-RSCP-Delta
                                                                                         PRESENCE
                                                                                                    optional },
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
  ****************
PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{PhysicalChannelReconfigurationRequestFDD-IEs}},
                               ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL
PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory },
   . . .
RL-Information-PhyChReconfRgstFDD ::= SEQUENCE {
   dl-CodeInformation
                               DL-CodeInformationList-PhyChReconfRqstFDD,
                               ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CodeInformationList-PhyChReconfRqstFDD
                                         ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }
DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FDD-DL-CodeInformation CRITICALITY notify TYPE FDD-DL-CodeInformation PRESENCE mandatory }
PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
```

```
PhysicalChannelReconfigurationRequestTDD ::= SEOUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                           {{PhysicalChannelReconfigurationRequestTDD-IEs}},
                                 ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                                 OPTIONAL,
PhysicalChannelReconfigurationRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
   . . .
RL-Information-PhyChReconfRgstTDD ::= SEQUENCE {
                             RL-ID,
   ul-CCTrCH-Information
                                     UL-CCTrCH-InformationList-PhyChReconfRgstTDD
                                                                                  OPTIONAL,
   dl-CCTrCH-Information
                                     DL-CCTrCH-InformationList-PhyChReconfRgstTDD
                                                                                  OPTIONAL,
                                 ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD
                                                                CRITICALITY reject EXTENSION HSPDSCH-Timeslot-InformationList-
PhyChReconfRqstTDD
                     PRESENCE optional }
   --For 3.84Mcps TDD only
    { ID id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRgstTDD CRITICALITY reject EXTENSION HSPDSCH-Timeslot-InformationListLCR-
PhyChReconfRqstTDD PRESENCE optional },
   --For 1.28Mcps TDD only
UL-CCTrCH-InformationList-PhyChReconfRgstTDD
                                              ::= ProtocolIE-Single-Container { { UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }
UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                            CRITICALITY reject TYPE UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                                   PRESENCE
mandatory }
UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRqstTDD
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                                 CCTrCH-ID,
   ul-DPCH-Information
                                 UL-DPCH-InformationList-PhyChReconfRqstTDD,
                                 ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL.
   iE-Extensions
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
```

```
UL-DPCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-PhyChReconfRqstTDD CRITICALITY notify TYPE UL-DPCH-InformationItem-PhyChReconfRqstTDD
                                                                                                                                 PRESENCE mandatory }
UL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod
                                                            OPTIONAL,
    repetitionLength
                                    RepetitionLength
                                                            OPTIONAL,
    tDD-DPCHOffset
                                    TDD-DPCHOffset
                                                            OPTIONAL,
    uL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                            UL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                                                                              OPTIONAL,
    --For 3.84Mcps TDD only
                                    ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD CRITICALITY reject
                                                                                         EXTENSION UL-TimeslotLCR-InformationList-
                        PRESENCE optional },
PhyChReconfRqstTDD
    --For 1.28Mcps TDD only
    . . .
UL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                             OPTIONAL.
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    uL-Code-LCR-Information
                                    TDD-UL-Code-LCR-Information
                                                                     OPTIONAL,
                                    ProtocolExtensionContainer { {UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD
UL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                                MidambleShiftAndBurstType
                                                                                 OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    uL-Code-Information
                                TDD-UL-Code-Information
                                                            OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL,
    . . .
UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-PhyChReconfRgstTDD
                                                    ::= ProtocolIE-Single-Container { {DL-CCTrCH-InformationListIEs-PhyChReconfRgstTDD} }
DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                          CRITICALITY reject TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                               PRESENCE
mandatory }
DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRqstTDD
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                                CCTrCH-ID,
   dl-DPCH-Information
                                DL-DPCH-InformationList-PhyChReconfRqstTDD,
                                 ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
DL-DPCH-InformationListIEs-PhyChReconfRgstTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DL-DPCH-InformationItem-PhyChReconfRgstTDD ::= SEOUENCE {
   repetitionPeriod
                                RepetitionPeriod
                                                      OPTIONAL,
   repetitionLength
                                RepetitionLength
                                                      OPTIONAL.
                                TDD-DPCHOffset
   tDD-DPCHOffset
                                                      OPTIONAL,
   dL-Timeslot-InformationList-PhyChReconfRgstTDD
                                                      DL-Timeslot-InformationList-PhyChReconfRgstTDD
                                                                                                    OPTIONAL,
                                ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    EXTENSION DL-TimeslotLCR-InformationList-
PhyChReconfRastTDD
                     PRESENCE optional }.
   --For 1.28Mcps TDD only
DL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEOUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   timeSlotLCR
                                TimeSlotLCR,
   midambleShiftLCR
                                MidambleShiftLCR
                                                      OPTIONAL,
                                                   OPTIONAL,
   tFCI-Presence
                                TFCI-Presence
   dL-Code-LCR-Information
                                TDD-DL-Code-LCR-Information
                                                              OPTIONAL,
   iE-Extensions
                                ProtocolExtensionContainer { {DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL.
DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD
DL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   timeSlot
                                  TimeSlot.
   midambleShiftAndBurstType
                                             MidambleShiftAndBurstType
                                                                            OPTIONAL.
                                                     OPTIONAL,
   tFCI-Presence
                                  TFCI-Presence
   dL-Code-Information
                              TDD-DL-Code-Information
                                                        OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-Timeslot-InformationList-PhyChReconfRgstTDD ::= SEOUENCE (SIZE (1..maxNrOfDLTs)) OF HSPDSCH-Timeslot-InformationItem-PhyChReconfRgstTDD
HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD::= SEQUENCE {
                                                 TimeSlot,
   midambleShiftAndBurstType
                                                 MidambleShiftAndBurstType,
   iE-Extensions
                                                 ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtlEs } }
           OPTIONAL,
HSPDSCH-Timeslot-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRgstTDD::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF HSPDSCH-Timeslot-InformationItemLCR-
PhyChReconfRastTDD
HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD::= SEQUENCE {
   timeslotLCR
                                             TimeSlotLCR,
   midambleShiftLCR
                                             MidambleShiftLCR,
   iE-Extensions
                                             ProtocolExtensionContainer { { HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs } }
       OPTIONAL,
    . . .
HSPDSCH-Timeslot-InformationItemLCR-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- PHYSICAL CHANNEL RECONFIGURATION COMMAND
  *****************
```

```
PhysicalChannelReconfigurationCommand ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{PhysicalChannelReconfigurationCommand-IEs}},
   protocolExtensions
                              ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}
                                                                                                                  OPTIONAL.
PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
                           CRITICALITY ignore TYPE CFN
                                                                    PRESENCE mandatory }
    ID id-CriticalityDiagnostics
                                     CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                   PRESENCE optional },
   . . .
PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  PHYSICAL CHANNEL RECONFIGURATION FAILURE
  PhysicalChannelReconfigurationFailure ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{PhysicalChannelReconfigurationFailure-IEs}},
                              ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                                  OPTIONAL,
   . . .
PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-Cause
                              CRITICALITY ignore TYPE Cause
                                                                       PRESENCE mandatory } |
    ID id-CriticalityDiagnostics
                                     CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                   PRESENCE optional },
PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ***************
-- RADIO LINK CONGESTION INDICATION
  RadioLinkCongestionIndication ::= SEOUENCE {
                              ProtocolIE-Container
   protocolIEs
                                                      {{RadioLinkCongestionIndication-IEs}},
   protocolExtensions
                              ProtocolExtensionContainer {{RadioLinkCongestionIndication-Extensions}}
                                                                                                           OPTIONAL,
RadioLinkCongestionIndication-IES RNSAP-PROTOCOL-IES ::= {
    ID id-CongestionCause
                         CRITICALITY ignore TYPE CongestionCause
                                                                                             PRESENCE optional }
   PRESENCE mandatory },
   . . .
```

```
RL-InformationList-RL-CongestInd
                                          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
CongestInd } }
RL-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-CongestInd
                                                  CRITICALITY ignore TYPE RL-InformationItem-RL-CongestInd PRESENCE mandatory }
RL-InformationItem-RL-CongestInd ::= SEQUENCE {
                                       RL-ID,
   dCH-Rate-Information
                               DCH-Rate-Information-RL-CongestInd,
   iE-Extensions
                               ProtocolExtensionContainer { {RL-Information-RL-CongestInd-ExtIEs} } OPTIONAL,
DCH-Rate-Information-RL-CongestInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF ProtocolIE-Single-Container { {DCH-Rate-InformationItemIEs-RL-
CongestInd } }
DCH-Rate-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-Rate-InformationItem-RL-CongestInd
                                                      CRITICALITY ignore TYPE DCH-Rate-InformationItem-RL-CongestInd
                                                                                                                         PRESENCE mandatory
DCH-Rate-InformationItem-RL-CongestInd ::= SEOUENCE {
   dCH-ID
                               DCH-ID,
    allowed-Rate-Information
                              Allowed-Rate-Information OPTIONAL,
                               ProtocolExtensionContainer { { DCH-Rate-InformationItem-RL-CongestInd-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-Rate-InformationItem-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-CongestInd-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkCongestionIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- UPLINK SIGNALLING TRANSFER INDICATION FDD
  ******************
UplinkSignallingTransferIndicationFDD ::= SEQUENCE {
                                                              {{UplinkSignallingTransferIndicationFDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
                                   ProtocolExtensionContainer {{UplinkSignallingTransferIndicationFDD-Extensions}}
   protocolExtensions
                                                                                                                                   OPTIONAL,
```

```
UplinkSignallingTransferIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-UC-ID
                                  CRITICALITY ignore TYPE UC-ID
                                                                                PRESENCE mandatory }
                                                                            PRESENCE mandatory }
     ID id-SAI
                              CRITICALITY ignore TYPE SAI
     ID id-GA-Cell
                              CRITICALITY ignore TYPE GA-Cell
                                                                            PRESENCE optional }
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                                PRESENCE mandatory
                                                                                PRESENCE mandatory
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                PRESENCE optional
     ID id-PropagationDelay
                                  CRITICALITY ignore TYPE PropagationDelay
                                                                                PRESENCE mandatory
     ID id-STTD-SupportIndicator
                                             CRITICALITY ignore TYPE STTD-SupportIndicator PRESENCE mandatory }
     ID id-ClosedLoopModel-SupportIndicator
                                             CRITICALITY ignore TYPE ClosedLoopModel-SupportIndicator PRESENCE mandatory
     ID id-ClosedLoopMode2-SupportIndicator
                                             CRITICALITY ignore TYPE ClosedLoopMode2-SupportIndicator PRESENCE mandatory
     ID id-L3-Information
                                                                                       PRESENCE mandatory }
                                      CRITICALITY ignore TYPE L3-Information
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-URA-Information
                                          CRITICALITY ignore TYPE URA-Information
                                                                                                PRESENCE optional },
UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::=
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                   PRESENCE optional }
     ID id-DPC-Mode-Change-SupportIndicator
                                             CRITICALITY ignore EXTENSION
                                                                                DPC-Mode-Change-SupportIndicator
                                                                                                                    PRESENCE optional } |
     ID id-CommonTransportChannelResourcesInitialisationNotRequired
                                                                    CRITICALITY ignore EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired
                                                             PRESENCE optional }|
     ID id-CellCapabilityContainer-FDD
                                         CRITICALITY ignore EXTENSION CellCapabilityContainer-FDD
                                                                                                     PRESENCE optional } |
     ID id-SNA-Information
                                                                    EXTENSION SNA-Information
                                                                                                   PRESENCE optional },
                                          CRITICALITY ignore
     *****************
  UPLINK SIGNALLING TRANSFER INDICATION TDD
   UplinkSignallingTransferIndicationTDD ::= SEOUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{UplinkSignallingTransferIndicationTDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}
                                                                                                                                OPTIONAL,
UplinkSignallingTransferIndicationTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-UC-ID
                                                                                PRESENCE mandatory }
                                  CRITICALITY ignore TYPE UC-ID
     ID id-SAI
                              CRITICALITY ignore TYPE SAI
                                                                            PRESENCE mandatory }
     ID id-GA-Cell
                              CRITICALITY ignore TYPE GA-Cell
                                                                            PRESENCE optional }
     ID id-C-RNTI
                                  CRITICALITY ignore TYPE C-RNTI
                                                                                PRESENCE mandatory
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                PRESENCE mandatory
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                PRESENCE optional
     ID id-RxTimingDeviationForTA
                                          CRITICALITY ignore TYPE RxTimingDeviationForTA PRESENCE mandatory }
     ID id-L3-Information
                                      CRITICALITY ignore TYPE L3-Information
                                                                                       PRESENCE mandatory }
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                             PRESENCE optional }
     ID id-URA-Information
                                          CRITICALITY ignore TYPE URA-Information
                                                                                                PRESENCE optional }
```

```
UplinkSignallingTransferIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                     PRESENCE optional } |
     ID id-CommonTransportChannelResourcesInitialisationNotRequired
                                                                      CRITICALITY ignore EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired
                                                              PRESENCE optional
    { ID id-CellCapabilityContainer-TDD
                                          CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
                                                                                                        PRESENCE optional } |
       -- Applicable to 3.84Mcps TDD only
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION
                                                                          CellCapabilityContainer-TDD-LCR
                                                                                                             PRESENCE optional }
       -- Applicable to 1.28Mcps TDD only
    { ID id-SNA-Information
                                          CRITICALITY ignore EXTENSION
                                                                          SNA-Information
                                                                                                        PRESENCE optional },
-- DOWNLINK SIGNALLING TRANSFER REQUEST
   *****************
DownlinkSignallingTransferRequest ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                              {{DownlinkSignallingTransferRequest-IEs}},
                                   ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}
   protocolExtensions
                                                                                                                               OPTIONAL
DownlinkSignallingTransferRequest-IEs RNSAP-PROTOCOL-IES ::= {
                                                                                  PRESENCE mandatory } |
    { ID id-C-ID
                                   CRITICALITY ignore TYPE C-ID
    -- May be a GERAN cell identifier
    { ID id-D-RNTI
                                   CRITICALITY ignore TYPE D-RNTI
                                                                                  PRESENCE mandatory }
                                                                                         PRESENCE mandatory }
     ID id-L3-Information
                                       CRITICALITY ignore TYPE L3-Information
     ID id-D-RNTI-ReleaseIndication
                                          CRITICALITY ignore TYPE D-RNTI-ReleaseIndication
                                                                                                  PRESENCE mandatory
DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RELOCATION COMMIT
RelocationCommit ::= SEOUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                              {{RelocationCommit-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RelocationCommit-Extensions}}
                                                                                                              OPTIONAL.
RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                   CRITICALITY ignore TYPE D-RNTI
                                                                                  PRESENCE optional
    { ID id-RANAP-RelocationInformation
                                          CRITICALITY ignore TYPE RANAP-RelocationInformation
                                                                                                  PRESENCE optional },
    . . .
```

```
RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- PAGING REQUEST
__ ***********************
PagingRequest ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{PagingRequest-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{PagingRequest-Extensions}}
                                                                                                          OPTIONAL,
PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
                                                                                              PRESENCE mandatory } |
     ID id-PagingArea-PagingRqst
                                          CRITICALITY ignore TYPE PagingArea-PagingRqst
                                                                   PRESENCE mandatory
     ID id-SRNC-ID
                                  CRITICALITY ignore TYPE RNC-ID
                                                                                                        -- May be a BSC-Id.
                                                                           PRESENCE mandatory }
PRESENCE mandatory }
                                  CRITICALITY ignore TYPE S-RNTI
     ID id-S-RNTI
     ID id-IMSI
                                  CRITICALITY ignore TYPE IMSI
     ID id-DRXCycleLengthCoefficient
                                                 CRITICALITY ignore TYPE DRXCycleLengthCoefficient
                                                                                                            PRESENCE mandatory
    ID id-CNOriginatedPage-PagingRqst
                                                 CRITICALITY ignore TYPE CNOriginatedPage-PagingRqst
                                                                                                            PRESENCE optional
PagingArea-PagingRgst ::= CHOICE {
                          URA-PagingRqst, -- May be a GRA-ID.
                          Cell-PagingRgst, -- UTRAN only
   cell
    . . .
URA-PagingRqst ::= SEQUENCE {
   uRA-ID
   iE-Extensions
                              ProtocolExtensionContainer { { URAItem-PagingRgst-ExtIEs} } OPTIONAL,
URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Cell-PagingRqst ::= SEQUENCE {
   c-ID
   iE-Extensions
                              ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs} } OPTIONAL,
CellItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
CNOriginatedPage-PagingRgst::= SEQUENCE {
   pagingCause
                            PagingCause,
   cNDomainType
                            CNDomainType,
   pagingRecordType
                            PagingRecordType,
   iE-Extensions
                            ProtocolExtensionContainer { CNOriginatedPage-PagingRgst-ExtIEs} } OPTIONAL,
CNOriginatedPage-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PagingReguest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  DEDICATED MEASUREMENT INITIATION REQUEST
     DedicatedMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{DedicatedMeasurementInitiationRequest-IEs}},
                               ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}
   protocolExtensions
                                                                                                                       OPTIONAL,
DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                   CRITICALITY reject TYPE MeasurementID
                                                                                 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
   . . .
DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
                        RL-DM-Rast,
   rLS
                        RL-Set-DM-Rqst,
   allRT.
                        All-RL-DM-Rqst,
   allRLS
                        All-RL-Set-DM-Rgst,
RL-DM-Rqst ::= SEQUENCE {
   rL-InformationList-DM-Rgst
                               RL-InformationList-DM-Rgst,
                                ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
```

```
RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rgst
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rgst-IEs} }
RL-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst
                                            CRITICALITY reject TYPE RL-InformationItem-DM-Rqst
                                                                                                    PRESENCE mandatory }
RL-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-ID
                               RL-ID,
    dPCH-ID
                               DPCH-ID
                                            OPTIONAL.
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-InformationItem-DM-Rgst-ExtIEs} } OPTIONAL,
RL-InformationItem-DM-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-Info-DM-Rgst
                                   CRITICALITY reject
                                                                    EXTENSION HSSICH-Info-DM-Rast
                                                                                                                      PRESENCE optional },
    -- TDD only
    . . .
HSSICH-Info-DM-Rgst ::= SEOUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID
RL-Set-DM-Rgst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rgst RL-Set-InformationList-DM-Rgst,
    iE-Extensions
                                    ProtocolExtensionContainer { { RL-SetItem-DM-Rgst-ExtIEs} } OPTIONAL,
RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rqst
                                              ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rqst-IEs} }
RL-Set-Information-DM-Rgst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rgst
                                            CRITICALITY reject TYPE RL-Set-InformationItem-DM-Rgst
                                                                                                             PRESENCE mandatory
RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
   rL-Set-ID
                                   RL-Set-ID,
                                    ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rgst-ExtIEs} } OPTIONAL.
    iE-Extensions
RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
All-RL-DM-Rqst ::= NULL
```

```
All-RL-Set-DM-Rqst ::= NULL
DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-PartialReportingIndicator
                                   CRITICALITY ignore
                                                         EXTENSION
                                                                  PartialReportingIndicator
                                                                                                        PRESENCE optional
   },
       -- DEDICATED MEASUREMENT INITIATION RESPONSE
__ *********************
DedicatedMeasurementInitiationResponse ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                   {{DedicatedMeasurementInitiationResponse-IEs}},
   protocolExtensions
                            ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}
                                                                                                            OPTIONAL,
DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-MeasurementID
                               CRITICALITY ignore TYPE MeasurementID
                                                                         PRESENCE mandatory } |
    PRESENCE optional }.
DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
                      RL-DM-Rsp,
   rLS
                      RL-Set-DM-Rsp,
   allRL
                      RL-DM-Rsp,
   allRLS
                      RL-Set-DM-Rsp,
   . . .
RL-DM-Rsp ::= SEQUENCE {
   rL-InformationList-DM-Rsp
                            RL-InformationList-DM-Rsp,
                            ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rsp ::= SEQUENCE {
   rL-Set-InformationList-DM-Rsp
                           RL-Set-InformationList-DM-Rsp,
   iE-Extensions
                            ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
   . . .
RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

. . .

```
RL-InformationList-DM-Rsp
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rsp-IEs} }
RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp
                                           CRITICALITY ignore TYPE RL-InformationItem-DM-Rsp PRESENCE mandatory
RL-InformationItem-DM-Rsp ::= SEQUENCE {
   rL-ID
                               RL-ID,
    dPCH-ID
                               DPCH-ID
                                                   OPTIONAL,
                                       DedicatedMeasurementValue,
    dedicatedMeasurementValue
                                                   OPTIONAL,
                               CFN
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM
                                                                                           PRESENCE optional },
                               CRITICALITY reject
                                                               EXTENSION HS-SICH-ID
    -- TDD only
    . . .
RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-IEs} }
RL-Set-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp
                                               CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rsp
                                                                                                         PRESENCE mandatory
RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID
                                   RL-Set-ID,
    dedicatedMeasurementValue
                                   DedicatedMeasurementValue,
                                                               OPTIONAL,
    CFN
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  DEDICATED MEASUREMENT INITIATION FAILURE
      *****************
DedicatedMeasurementInitiationFailure ::= SEQUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                               {{DedicatedMeasurementInitiationFailure-IEs}},
                                   {\tt ProtocolExtensionContainer~ \{\{Dedicated Measurement Initiation Failure - Extensions\}\}}
   protocolExtensions
                                                                                                                                     OPTIONAL,
```

```
DedicatedMeasurementInitiationFailure-IES RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                  CRITICALITY ignore TYPE MeasurementID
                                                                                           PRESENCE mandatory }
     ID id-Cause
                                   CRITICALITY ignore TYPE Cause
                                                                                   PRESENCE mandatory } |
    ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                 PRESENCE optional },
DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DedicatedMeasurementObjectType-DM-Fail CRITICALITY ignore EXTENSION DedicatedMeasurementObjectType-DM-Fail PRESENCE optional },
    . . .
DedicatedMeasurementObjectType-DM-Fail ::= CHOICE {
                           RL-DM-Fail,
   rLS
                           RL-Set-DM-Fail,
    allRL
                           RL-DM-Fail,
                           RL-Set-DM-Fail,
    allRLS
RL-DM-Fail ::= SEQUENCE {
   rL-unsuccessful-InformationRespList-DM-Fail
                                                   RL-Unsuccessful-InformationRespList-DM-Fail,
   rL-successful-InformationRespList-DM-Fail
                                                   RL-Successful-InformationRespList-DM-Fail
                                                                                                   OPTIONAL,
   iE-Extensions
                                   ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail RL-Set-Unsuccessful-InformationRespList-DM-Fail,
   rL-Set-successful-InformationRespList-DM-Fail RL-Set-Successful-InformationRespList-DM-Fail
                                                                                                      OPTIONAL,
                                   ProtocolExtensionContainer { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Unsuccessful-InformationRespList-DM-Fail
                                                ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
                                                     CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail
                                                                                                                           PRESENCE mandatory
RL-Unsuccessful-InformationItem-DM-Fail ::= SEOUENCE {
                               RL-ID.
    individualcause
                               Cause
                                      OPTIONAL,
```

```
ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Successful-InformationRespList-DM-Fail
                                                   ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Successful-
InformationResp-DM-Fail-IEs} }
RL-Successful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Successful-InformationItem-DM-Fail
                                                       CRITICALITY ignore TYPE RL-Successful-InformationItem-DM-Fail PRESENCE mandatory }
RL-Successful-InformationItem-DM-Fail ::= SEQUENCE {
   rL-ID
                               RL-ID,
    dPCH-ID
                               DPCH-ID
                                                    OPTIONAL,
    dedicatedMeasurementValue
                               DedicatedMeasurementValue,
                                                    OPTIONAL,
    iE-Extensions
                               ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM
                               CRITICALITY reject
                                                                                            PRESENCE optional },
                                                                EXTENSION HS-SICH-ID
    -- TDD only
RL-Set-Unsuccessful-InformationRespList-DM-Fail
                                                           ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }
RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                           CRITICALITY ignore TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                                                                                                     PRESENCE
mandatory }
RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID
                                    RL-Set-ID,
    individualcause
                                    Cause
                                               OPTIONAL
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                           ::= SEQUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
RL-Set-Successful-InformationRespList-DM-Fail
Successful-InformationResp-DM-Fail-IEs} }
RL-Set-Successful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-RL-Set-Successful-InformationItem-DM-Fail
                                                         CRITICALITY ignore TYPE RL-Set-Successful-InformationItem-DM-Fail
                                                                                                                             PRESENCE
mandatory }
RL-Set-Successful-InformationItem-DM-Fail ::= SEOUENCE {
                                  RL-Set-ID,
    dedicatedMeasurementValue
                                  DedicatedMeasurementValue,
    cFN
    iE-Extensions
                                  ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  DEDICATED MEASUREMENT REPORT
   ····
DedicatedMeasurementReport ::= SEQUENCE {
    protocolIEs
                                  ProtocolIE-Container
                                                             {{DedicatedMeasurementReport-IEs}},
                                  ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL.
    . . .
DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                      CRITICALITY ignore TYPE MeasurementID
                                                                                        PRESENCE mandatory } |
     ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory },
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
   rLs
                          RL-DM-Rprt,
   rLS
                          RL-Set-DM-Rprt,
    allRL
                          RL-DM-Rprt,
                          RL-Set-DM-Rprt,
    allRLS
    . . .
RL-DM-Rprt ::= SEQUENCE {
   rL-InformationList-DM-Rprt
                                  RL-InformationList-DM-Rprt,
                                  ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rprt ::= SEQUENCE {
   rL-Set-InformationList-DM-Rprt RL-Set-InformationList-DM-Rprt,
```

```
ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rprt
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }
RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt
                                           CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt
                                                                                                    PRESENCE mandatory
RL-InformationItem-DM-Rprt ::= SEOUENCE {
   rL-ID
                                RL-ID.
    dPCH-ID
                                DPCH-ID
                                                    OPTIONAL,
    dedicatedMeasurementValueInformation
                                           DedicatedMeasurementValueInformation,
                                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM-Rprt
                                   CRITICALITY ignore
                                                                    EXTENSION HS-SICH-ID
                                                                                                PRESENCE optional },
    -- TDD only
    . . .
                                                ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
RL-Set-InformationList-DM-Rprt
Rprt-IEs} }
RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt
                                            CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt
                                                                                                             PRESENCE mandatory
RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
                                   RL-Set-ID,
    dedicatedMeasurementValueInformation DedicatedMeasurementValueInformation,
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    . . .
RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT TERMINATION REQUEST
```

```
__ *********************
DedicatedMeasurementTerminationRequest ::= SEQUENCE
   protocolIEs
                                 ProtocolIE-Container
                                                           {{DedicatedMeasurementTerminationRequest-IEs}},
   protocolExtensions
                                 ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}
                                                                                                                             OPTIONAL.
DedicatedMeasurementTerminationRequest-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-MeasurementID
                                    CRITICALITY ignore TYPE MeasurementID
                                                                                     PRESENCE mandatory },
DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
        **************
-- DEDICATED MEASUREMENT FAILURE INDICATION
__ *********************
DedicatedMeasurementFailureIndication ::= SEOUENCE {
                                                           {{DedicatedMeasurementFailureIndication-IEs}},
   protocolIEs
                                 ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}
                                                                                                                            OPTIONAL,
DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
                                                                                     PRESENCE mandatory }
    { ID id-MeasurementID
                                    CRITICALITY ignore TYPE MeasurementID
    { ID id-Cause
                                 CRITICALITY ignore TYPE Cause
                                                                              PRESENCE mandatory },
   . . .
DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-DedicatedMeasurementObjectType-DM-Fail-Ind CRITICALITY ignore EXTENSION DedicatedMeasurementObjectType-DM-Fail-Ind PRESENCE optional
DedicatedMeasurementObjectType-DM-Fail-Ind ::= CHOICE {
                         RL-DM-Fail-Ind,
   rL
   rLS
                         RL-Set-DM-Fail-Ind,
   allRL
                         RL-DM-Fail-Ind,
   allRLS
                         RL-Set-DM-Fail-Ind,
RL-DM-Fail-Ind ::= SEOUENCE {
   rL-unsuccessful-InformationRespList-DM-Fail-Ind
                                                    RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
   iE-Extensions
                                                    ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
```

```
RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail-Ind ::= SEQUENCE {
   rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind
                                                           RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
   iE-Extensions
                                                           ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
RL-SetItem-DM-Fail-Ind-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
RL-Unsuccessful-InformationRespList-DM-Fail-Ind
                                                      ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-Ind-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                          CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                                                                                                  PRESENCE
mandatory }
RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEOUENCE {
   rL-ID
                               RL-ID,
    individualcause
                               Cause
                                           OPTIONAL,
                               ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Unsuccessful-InformationItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind
                                                              ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-Ind-IEs} }
RL-Set-Unsuccessful-InformationResp-DM-Fail-Ind-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind
                                                              CRITICALITY ignore TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind
mandatory }
RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
   rL-Set-ID
                                   RL-Set-ID,
    individualcause
                                   Cause
                                               OPTIONAL,
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs} } OPTIONAL,
RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
__ **********************
```

```
-- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
  ******************
CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
                               ProtocolIE-Container
                                                       {{CommonTransportChannelResourcesReleaseRequest-IEs}},
   protocolIEs
   protocolExtensions
                               ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
OPTIONAL,
   . . .
CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-D-RNTI
                               CRITICALITY ignore TYPE D-RNTI
                                                                         PRESENCE mandatory },
   . . .
CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON TRANSPORT CHANNEL RESOURCES REQUEST
      ***************
CommonTransportChannelResourcesRequest ::= SEOUENCE {
                                                       {{CommonTransportChannelResourcesRequest-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL,
CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                              CRITICALITY reject TYPE D-RNTI
                                                                        PRESENCE mandatory
     ID id-C-ID
                               CRITICALITY reject TYPE C-ID
                                                                         PRESENCE optional
     PRESENCE mandatory } |
    ID id-TransportBearerID
                           CRITICALITY reject TYPE TransportBearerID
                                                                                   PRESENCE mandatory },
CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                                     EXTENSION Permanent-NAS-UE-Identity PRESENCE optional } |
                                             CRITICALITY ignore
   { 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.
-- COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
```

```
__ *********************
CommonTransportChannelResourcesResponseFDD ::= SEQUENCE
   protocolIEs
                                  ProtocolIE-Container
                                                             {{CommonTransportChannelResourcesResponseFDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}
                                                                                                                            OPTIONAL.
CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                 PRESENCE mandatory
     ID id-C-RNTI
                                                                                 PRESENCE optional
                                  CRITICALITY ignore TYPE C-RNTI
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
    PRESENCE mandatory } |
     ID id-TransportLayerAddress
                                          CRITICALITY ignore TYPE TransportLayerAddress
                                                                                               PRESENCE optional } |
     ID id-BindingID
                                  CRITICALITY ignore TYPE BindingID
                                                                                     PRESENCE optional } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
    . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE
    fACH-FlowControlInformation
                                  FACH-FlowControlInformation-CTCH-ResourceRspFDD,
   iE-Extensions
                                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID
                              CRITICALITY ignore
                                                      EXTENSION C-ID
                                                                              PRESENCE mandatory },
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
CommonTransportChannelResourcesResponseTDD ::= SEOUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                             {{CommonTransportChannelResourcesResponseTDD-IEs}},
   protocolExtensions
                                  ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}
                                                                                                                            OPTIONAL,
    . . .
CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-S-RNTI
                                  CRITICALITY ignore TYPE S-RNTI
                                                                                 PRESENCE mandatory }
```

```
{ ID id-C-RNTI
                                 CRITICALITY ignore TYPE C-RNTI
                                                                              PRESENCE optional } |
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
   PRESENCE mandatory } |
     ID id-TransportLayerAddress
                                         CRITICALITY ignore TYPE TransportLayerAddress
                                                                                           PRESENCE optional } |
     ID id-BindingID
                                 CRITICALITY ignore TYPE BindingID
                                                                                  PRESENCE optional }
    ID id-CriticalityDiagnostics
                                        CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                           PRESENCE optional },
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD ::= SEQUENCE {
                                 FACH-FlowControlInformation-CTCH-ResourceRspTDD,
   fACH-FlowControlInformation
   iE-Extensions
                                 ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
   . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation-CTCH-ResourceRspTDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-C-ID
                             CRITICALITY ignore
                                                                           PRESENCE mandatory },
                                                    EXTENSION C-ID
   . . .
-- COMMON TRANSPORT CHANNEL RESOURCES FAILURE
  ····
CommonTransportChannelResourcesFailure ::= SEQUENCE {
                                                           {{CommonTransportChannelResourcesFailure-IEs}},
   protocolIEs
                                 ProtocolIE-Container
                                 ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
   . . .
CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                      CRITICALITY ignore TYPE S-RNTI
                                                                              PRESENCE mandatory
     ID id-Cause
                                 CRITICALITY ignore TYPE Cause
                                                                              PRESENCE mandatory
     ID id-CriticalityDiagnostics
                                        CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                           PRESENCE optional },
CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
__ ***********************
```

```
-- COMPRESSED MODE COMMAND
__ ********************
CompressedModeCommand ::= SEQUENCE {
                                                      {{CompressedModeCommand-IEs}},
   protocolIEs
                              ProtocolIE-Container
   protocolExtensions
                              ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}
                                                                                                     OPTIONAL,
CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-Active-Pattern-Sequence-Information
                                            CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                                   PRESENCE mandatory },
CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- ERROR INDICATION
  *****************
ErrorIndication ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{ErrorIndication-IEs}},
                              ProtocolExtensionContainer {{ErrorIndication-Extensions}}
   protocolExtensions
                                                                                                OPTIONAL,
ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
                              CRITICALITY ignore TYPE Cause
   { ID id-Cause
                                                                       PRESENCE optional |
   PRESENCE optional }.
   . . .
ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-S-RNTI
                             CRITICALITY ignore EXTENSION S-RNTI
                                                                              PRESENCE optional } |
                                                                              PRESENCE optional },
   { ID id-D-RNTI
                              CRITICALITY ignore EXTENSION D-RNTI
-- COMMON MEASUREMENT INITIATION REQUEST
     *************
CommonMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
               ProtocolIE-Container
                                            {{CommonMeasurementInitiationRequest-IEs}},
   protocolExtensions
                       ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}
                                                                                             OPTIONAL,
```

```
CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
           id-MeasurementID
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                  Measurement.ID
                                                                                                                                     PRESENCE
    mandatory }|
           id-CommonMeasurementObjectType-CM-Rgst
    { ID
                                                             CRITICALITY reject
                                                                                                  CommonMeasurementObjectType-CM-Rgst
                                                                                         TYPE
                                                                                                                                           PRESENCE
    mandatory } |
    { ID
           id-CommonMeasurementType
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                  CommonMeasurementType
                                                                                                                                     PRESENCE
    mandatory } |
    { ID
           id-MeasurementFilterCoefficient
                                                                                         TYPE
                                                                                                  MeasurementFilterCoefficient
                                                             CRITICALITY reject
                                                                                                                                     PRESENCE optional
    } |
    -- UTRAN only
    { ID
           id-ReportCharacteristics
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                  ReportCharacteristics
                                                                                                                                     PRESENCE
    mandatory }|
           id-SFNReportingIndicator
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                  FNReportingIndicator
                                                                                                                                     PRESENCE
    mandatory
     ID
           id-SFN
                                                             CRITICALITY reject
                                                                                          TYPE
                                                                                                  SFN
                                                                                                                                     PRESENCE optional
    -- UTRAN only
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                                                     PRESENCE optional
     ID
           id-CommonMeasurementAccuracy
                                                                                                  CommonMeasurementAccuracy
    -- UTRAN only
CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rgst ::= CHOICE {
    cell
                                    Cell-CM-Rqst,
    . . .
Cell-CM-Rqst ::= SEQUENCE {
                                    UC-ID,
    -- May be a GERAN cell identifier
    timeSlot
                                    TimeSlot
                                                     OPTIONAL, --3.84Mcps TDD only
                                                     OPTIONAL, --1.28Mcps TDD only
    timeSlotLCR
                                    TimeSlotLCR
    neighbouringCellMeasurementInformation
                                                     NeighbouringCellMeasurementInfo
                                                                                         OPTIONAL,
    -- UTRAN only
                                    ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs} }
    iE-Extensions
                                                                                                   OPTIONAL,
    . . .
NeighbouringCellMeasurementInfo ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
                neighbouring FDD Cell Measurement Information
                                                                 NeighbouringFDDCellMeasurementInformation,
                {\tt neighbouringTDDCellMeasurementInformation}
                                                                 NeighbouringTDDCellMeasurementInformation,
                {\tt extension-neighbouringCellMeasurementInformation}
                                                                     Extension-neighbouringCellMeasurementInformation
```

```
Extension-neighbouringCellMeasurementInformation ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}
Extension-neighbouringCellMeasurementInformationIE RNSAP-PROTOCOL-IES ::= {
   mandatory },
Cellitem-CM-Rqst-ExtiEs RNSAP-PROTOCOL-EXTENSION ::= {
   -- COMMON MEASUREMENT INITIATION RESPONSE
  ********************
CommonMeasurementInitiationResponse ::= SEQUENCE {
   protocolIEs
                       ProtocolIE-Container
                                             {{CommonMeasurementInitiationResponse-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}
                                                                                              OPTIONAL,
CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                                                                                                PRESENCE
                                                CRITICALITY ignore
                                                                        TYPE
                                                                               MeasurementID
   mandatory } |
          id-CommonMeasurementObjectType-CM-Rsp
     ID
                                                CRITICALITY ignore
                                                                        TYPE
                                                                               CommonMeasurementObjectType-CM-Rsp
                                                                                                                PRESENCE optional
     ID
          id-SFN
                                                CRITICALITY ignore
                                                                        TYPE
                                                                                                                PRESENCE optional
   -- UTRAN only
          id-CriticalityDiagnostics
                                                CRITICALITY ignore
                                                                        TYPE
                                                                               CriticalityDiagnostics
                                                                                                                PRESENCE optional
    ID
     ID
          id-CommonMeasurementAccuracy
                                                   CRITICALITY reject
                                                                            TYPE
                                                                                   CommonMeasurementAccuracy
                                                                                                                PRESENCE optional
   -- UTRAN only
CommonMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
   cell
                           Cell-CM-Rsp,
   . . .
Cell-CM-Rsp ::= SEQUENCE {
   commonMeasurementValue
                                         CommonMeasurementValue,
   iE-Extensions
                                         ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs} }
                                                                                              OPTIONAL,
   . . .
```

```
CellItem-CM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON MEASUREMENT INITIATION FAILURE
  *****************
CommonMeasurementInitiationFailure ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                 {{CommonMeasurementInitiationFailure-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{CommonMeasurementInitiationFailure-Extensions}}
                                                                                                       OPTIONAL,
CommonMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
           id-MeasurementID
                                         CRITICALITY
                                                        ignore
                                                                       TYPE
                                                                               MeasurementID
                                                                                                       PRESENCE mandatory
     TD
          id-Cause
                                         CRITICALITY
                                                        ignore
                                                                       TYPE
                                                                               Cause
                                                                                                       PRESENCE mandatory
          id-CriticalityDiagnostics
    { ID
                                                                       TYPE
                                                                               CriticalityDiagnostics
                                                                                                       PRESENCE optional },
                                         CRITICALITY
                                                        ignore
CommonMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- COMMON MEASUREMENT REPORT
__ *********************
CommonMeasurementReport ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{CommonMeasurementReport-IEs}},
                         ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}
   protocolExtensions
                                                                                            OPTIONAL,
CommonMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                                                                                                     PRESENCE mandatory
                                                    CRITICALITY ignore
                                                                               TYPE
                                                                                      MeasurementID
          id-CommonMeasurementObjectType-CM-Rprt
     ID
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                      CommonMeasurementObjectType-CM-Rprt PRESENCE
   mandatory }
   { ID
          id-SFN
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                      SFN
                                                                                                                  PRESENCE optional },
   -- UTRAN only
CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
```

```
CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
   cell
                               Cell-CM-Rprt.
   . . .
Cell-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
   iE-Extensions
                               ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}
                                                                                     OPTIONAL,
CellItem-CM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
  COMMON MEASUREMENT TERMINATION REQUEST
  CommonMeasurementTerminationRequest ::= SEQUENCE {
                                             {{CommonMeasurementTerminationRequest-IEs}},
   protocolIEs
                       ProtocolIE-Container
                        ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}
   protocolExtensions
                                                                                               OPTIONAL,
CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                                                                          PRESENCE mandatory },
   { ID
                                  CRITICALITY
                                                ignore
                                                                  TYPE
                                                                         MeasurementID
   . . .
CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    **********************
  COMMON MEASUREMENT FAILURE INDICATION
      CommonMeasurementFailureIndication ::= SEQUENCE {
                       ProtocolIE-Container
                                             {{CommonMeasurementFailureIndication-IEs}},
   protocolIEs
                           ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
                                                                  MeasurementID
    ID
         id-MeasurementID
                                  CRITICALITY ignore
                                                           TYPE
                                                                                     PRESENCE mandatory
    ID
         id-Cause
                                  CRITICALITY ignore
                                                           TYPE
                                                                  Cause
                                                                                     PRESENCE mandatory
```

```
CommonMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE INITIATION REQUEST
  *****************
InformationExchangeInitiationRequest ::= SEQUENCE {
                                                 {{InformationExchangeInitiationRequest-IEs}},
   protocolIEs
                         ProtocolIE-Container
   protocolExtensions
                         ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}
                                                                                                         OPTIONAL,
InformationExchangeInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                        CRITICALITY reject
                                                                               TYPE
                                                                                      InformationExchangeID
                                                                                                                        PRESENCE mandatory
    { ID
          id-InformationExchangeObjectType-InfEx-Rqst
                                                        CRITICALITY reject
                                                                               TYPE
                                                                                      InformationExchangeObjectType-InfEx-Rqst
                                                                                                                                PRESENCE
   mandatory }
     ID
           id-InformationType
                                                        CRITICALITY reject
                                                                               TYPE
                                                                                      InformationType
                                                                                                                        PRESENCE mandatory
           id-InformationReportCharacteristics
                                                                               TYPE
                                                                                      InformationReportCharacteristics
                                                                                                                       PRESENCE mandatory
     ID
                                                        CRITICALITY reject
InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
   cell
                                 Cell-InfEx-Rqst,
   . . .
Cell-InfEx-Rast ::= SEQUENCE {
   c-ID
                                 C-ID, --May be a GERAN cell identifier
                                 ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }
   iE-Extensions
                                                                                              OPTIONAL,
CellItem-InfEx-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- INFORMATION EXCHANGE INITIATION RESPONSE
```

```
*******************
InformationExchangeInitiationResponse ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{InformationExchangeInitiationResponse-IEs}},
                         ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                       CRITICALITY ignore
                                                                                 TYPE
                                                                                        InformationExchangeID
                                                                                                                        PRESENCE
   mandatory } |
          id-InformationExchangeObjectType-InfEx-Rsp
   { ID
                                                       CRITICALITY ignore
                                                                                 TYPE
                                                                                        InformationExchangeObjectType-InfEx-Rsp
                                                                                                                                PRESENCE
   optional }|
     ID
          id-CriticalityDiagnostics
                                                       CRITICALITY ignore
                                                                                        CriticalityDiagnostics
                                                                                                                        PRESENCE optional
                                                                                 TYPE
   . . .
InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
   cell
                             Cell-InfEx-Rsp,
   . . .
Cell-InfEx-Rsp ::= SEOUENCE {
                                 RequestedDataValue,
   requestedDataValue
   iE-Extensions
                                 ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }
                                                                                            OPTIONAL,
CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    *******************
-- INFORMATION EXCHANGE INITIATION FAILURE
  InformationExchangeInitiationFailure ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{InformationExchangeInitiationFailure-IEs}},
                         ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
InformationExchangeInitiationFailure-IES RNSAP-PROTOCOL-IES ::= {
     ID
          id-InformationExchangeID
                                               CRITICALITY
                                                                             TYPE
                                                                                    InformationExchangeID
                                                                                                                  PRESENCE mandatory
                                                              ignore
    { ID
          id-Cause
                                                CRITICALITY
                                                              ignore
                                                                             TYPE
                                                                                    Cause
                                                                                                                  PRESENCE mandatory
```

```
id-CriticalityDiagnostics
                                                                                    CriticalityDiagnostics
   { ID
                                               CRITICALITY
                                                                             TYPE
                                                                                                                  PRESENCE optional },
                                                              ignore
InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION REPORT
__ *********************
InformationReport ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container {{InformationReport-IEs}},
                         ProtocolExtensionContainer {{InformationReport-Extensions}}
   protocolExtensions
                                                                                        OPTIONAL,
InformationReport-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                       CRITICALITY ignore
                                                                                 TYPE
                                                                                        InformationExchangeID
                                                                                                                                PRESENCE
   mandatory } |
          id-InformationExchangeObjectType-InfEx-Rprt
                                                       CRITICALITY ignore
                                                                                 TYPE
                                                                                        InformationExchangeObjectType-InfEx-Rprt
   mandatory },
   . . .
InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
   cell
                                Cell-InfEx-Rprt,
   . . .
Cell-InfEx-Rprt ::= SEOUENCE {
   requestedDataValueInformation
                                RequestedDataValueInformation,
   iE-Extensions
                                 ProtocolExtensionContainer {{ CellItem-InfEx-Rprt-ExtIEs }}
                                                                                            OPTIONAL,
   . . .
CellItem-InfEx-Rort-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
__ ********************
-- INFORMATION EXCHANGE TERMINATION REQUEST
__ ********************************
```

```
InformationExchangeTerminationRequest ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{InformationExchangeTerminationRequest-IEs}},
   protocolExtensions
                         ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
                                                                                                       OPTIONAL,
InformationExchangeTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                            CRITICALITY
                                                                             TYPE
                                                                                    InformationExchangeID
                                                                                                               PRESENCE mandatory },
                                                          ignore
   . . .
InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE FAILURE INDICATION
  *****************
InformationExchangeFailureIndication ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{InformationExchangeFailureIndication-IEs}},
                             ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
   protocolExtensions
                                                                                                               OPTIONAL,
InformationExchangeFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
     ID
                                            CRITICALITY ignore
                                                                      TYPE
                                                                             InformationExchangeID
                                                                                                       PRESENCE mandatory
    { ID
                                            CRITICALITY ignore
                                                                     TYPE
                                                                                                       PRESENCE mandatory
          id-Cause
                                                                             Cause
   . . .
InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     *******************
-- RESET REQUEST
   ResetRequest ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{ResetRequest-IEs}},
                         ProtocolExtensionContainer {{ResetRequest-Extensions}}
                                                                                 OPTIONAL,
   protocolExtensions
ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RNC-ID
                             CRITICALITY reject TYPE RNC-ID
                                                              PRESENCE mandatory
    { ID id-ResetIndicator
                             CRITICALITY reject
                                                   TYPE
                                                        ResetIndicator
                                                                             PRESENCE
                                                                                        mandatory },
```

```
ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
ResetIndicator ::= CHOICE {
    context
                    ContextList-Reset,
   all-contexts
                       NULL,
    contextGroup
                   ContextGroupList-Reset
ContextList-Reset ::= SEQUENCE {
    contextInfoList-Reset
                                ContextInfoList-Reset,
                                            ProtocolExtensionContainer { {ContextItem-Reset-ExtIEs} }
   iE-Extensions
                                                                                                           OPTIONAL,
ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}
ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextInfoItem-Reset
                                        CRITICALITY reject
                                                                TYPE ContextInfoItem-Reset
                                                                                                PRESENCE mandatory }
ContextInfoItem-Reset ::= SEQUENCE {
    contextType-Reset
                                ContextType-Reset,
   iE-Extensions
                                ProtocolExtensionContainer { { ContextInfoItem-Reset-ExtIEs} } OPTIONAL,
ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextType-Reset ::= CHOICE {
    sRNTI
                    S-RNTI,
    dRNTI
                    D-RNTI,
ContextGroupList-Reset ::= SEQUENCE
    contextGroupInfoList-Reset
                                    ContextGroupInfoList-Reset,
   iE-Extensions
                                    ProtocolExtensionContainer { {ContextGroupItem-Reset-ExtIEs} }
                                                                                                        OPTIONAL,
    . . .
ContextGroupItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
ContextGroupInfoList-Reset ::= SEOUENCE (SIZE (1.. maxResetContextGroup)) OF ProtocolIE-Single-Container {{ ContextGroupInfoItemIE-Reset }}
ContextGroupInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
   {ID id-ContextGroupInfoItem-Reset
                                     CRITICALITY reject
                                                          TYPE ContextGroupInfoItem-Reset
                                                                                         PRESENCE mandatory }
ContextGroupInfoItem-Reset ::= SEQUENCE {
   s-RNTI-Group
                           S-RNTI-Group,
   iE-Extensions
                           ProtocolExtensionContainer { { ContextGroupInfoItem-Reset-ExtIEs} }
                                                                                         OPTIONAL,
   . . .
ContextGroupInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RESET RESPONSE
  ResetResponse ::= SEQUENCE {
                        ProtocolIE-Container
                                             {{ResetResponse-IEs}},
   protocolIEs
                        ProtocolExtensionContainer {{ResetResponse-Extensions}}
   protocolExtensions
                                                                                   OPTIONAL,
ResetResponse-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RNC-ID
                          CRITICALITY ignore TYPE RNC-ID
                                                          PRESENCE mandatory }
   { ID id-CriticalityDiagnostics
                                  CRITICALITY
                                                ignore
                                                                 CriticalityDiagnostics
                                                                                         PRESENCE optional },
   . . .
ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK ACTIVATION COMMAND FDD
__ *********************
RadioLinkActivationCommandFDD ::= SEOUENCE {
   protocolIEs
                 ProtocolIE-Container
                                            {{RadioLinkActivationCommandFDD-IEs}},
                       ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}
   protocolExtensions
                                                                                            OPTIONAL,
   . . .
RadioLinkActivationCommandFDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DelayedActivationList-RL-ActivationCmdFDD
                                                        CRITICALITY ignore TYPE
                                                                                  DelayedActivationInformationList-RL-ActivationCmdFDD
   PRESENCE
              mandatory },
RadioLinkActivationCommandFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdFDD-IES RNSAP-PROTOCOL-IES ::= {
    ID id-DelayedActivationInformation-RL-ActivationCmdFDD
                                                          CRITICALITY ignore TYPE DelayedActivationInformation-RL-ActivationCmdFDD PRESENCE
optional
DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
                             RL-ID,
   delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                             ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK ACTIVATION COMMAND TDD
  RadioLinkActivationCommandTDD ::= SEOUENCE {
                         ProtocolIE-Container
                                                {{RadioLinkActivationCommandTDD-IEs}},
   protocolIEs
   protocolExtensions
                         ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}}
                                                                                                   OPTIONAL,
RadioLinkActivationCommandTDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-DelayedActivationList-RL-ActivationCmdTDD
                                                        CRITICALITY ignore TYPE
                                                                                 DelayedActivationInformationList-RL-ActivationCmdTDD
   PRESENCE
              mandatory },
RadioLinkActivationCommandTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdTDD-IES RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DelayedActivationInformation-RL-ActivationCmdTDD
                                                            CRITICALITY ignore TYPE DelayedActivationInformation-RL-ActivationCmdTDD PRESENCE
optional
DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
                              RL-ID,
   delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                              ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  GERAN UPLINK SIGNALLING TRANSFER INDICATION
    *****************
GERANUplinkSignallingTransferIndication ::= SEQUENCE {
                                                            {{GERANUplinkSignallingTransferIndication-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{GERANUplinkSignallingTransferIndication-Extensions}} OPTIONAL.
GERANUplinkSignallingTransferIndication-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UC-ID
                                     CRITICALITY ignore TYPE UC-ID
                                                                                           PRESENCE mandatory
    -- UC-Id may be GERAN cell identifier.
     ID id-SAI
                                     CRITICALITY ignore TYPE SAI
                                                                                           PRESENCE mandatory
     ID id-S-RNTI
                                     CRITICALITY ignore TYPE S-RNTI
                                                                                           PRESENCE mandatory
     ID id-D-RNTI
                                     CRITICALITY ignore TYPE D-RNTI
                                                                                           PRESENCE optional
     ID id-L3-Information
                                     CRITICALITY ignore TYPE L3-Information
                                                                                           PRESENCE mandatory
                                                                                           PRESENCE optional
     ID id-CN-PS-DomainIdentifier
                                     CRITICALITY ignore TYPE CN-PS-DomainIdentifier
     ID id-CN-CS-DomainIdentifier
                                     CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                           PRESENCE optional
    { ID id-URA-Information
                                     CRITICALITY ignore TYPE URA-Information
                                                                                           PRESENCE optional
    -- URA information may be GRA information
GERANUplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
    RadioLinkParameterUpdateIndicationFDD ::= SEOUENCE
                                                 {{RadioLinkParameterUpdateIndicationFDD-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationFDD-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
```

```
RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-HSDSCH-FDD-Update-Information
                                                                                       HSDSCH-FDD-Update-Information
                                                              CRITICALITY ignore TYPE
                                                                                                                         PRESENCE
   optional}|
   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 ignore 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,
                                    ProtocolExtensionContainer { { RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkParameterUpdateIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK PARAMETER UPDATE INDICATION TDD
__ *******************************
RadioLinkParameterUpdateIndicationTDD ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{RadioLinkParameterUpdateIndicationTDD-IEs}},
                         ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationTDD-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
RadioLinkParameterUpdateIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-HSDSCH-TDD-Update-Information
                                               CRITICALITY
                                                                                HSDSCH-TDD-Update-Information
                                                                                                                 PRESENCE optional },
                                                              ignore
                                                                        TYPE
   . . .
RadioLinkParameterUpdateIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

## 9.3.4 Information Element Definitions

```
*****************
-- Information Element Definitions
RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
   maxCodeNumComp-1,
   maxNrOfFACHs,
   maxFACHCountPlus1,
   maxIBSEG,
   maxNoOfDSCHs,
   maxNoOfDSCHs-1,
   maxNoOfUSCHs,
   maxNoTFCIGroups,
   maxNoCodeGroups,
   maxNrOfDCHs,
   maxNrOfDL-Codes,
   maxNrOfDLTs,
   maxNrOfDLTsLCR,
   maxNrOfDPCHs,
   maxNrOfDPCHsLCR,
   maxNrOfErrors,
   maxNrOfFDDNeighboursPerRNC,
   maxNrOfMACcshSDU-Length,
```

```
maxNrOfNeighbouringRNCs,
maxNrOfTDDNeighboursPerRNC,
maxNrOfLCRTDDNeighboursPerRNC,
maxNrOfTS.
maxNrOfULTs.
maxNrOfULTsLCR,
maxNrOfGSMNeighboursPerRNC,
maxRateMatching,
maxNrOfPoints,
maxNoOfRB,
maxNrOfRLs,
maxNrOfTFCs,
maxNrOfTFs,
maxCTFC,
maxRNCinURA-1,
maxNrOfSCCPCHs,
maxTFCI1Combs,
maxTFCI2Combs,
maxTFCI2Combs-1,
maxTGPS,
maxTTI-Count,
maxNoGPSTypes,
maxNoSat,
maxNrOfSNAs,
maxNrOfHARQProc,
maxNrOfHSSCCHCodes,
maxNrOfMACdFlows,
maxNrOfMACdFlows-1,
maxNrOfPDUIndexes,
maxNrOfPDUIndexes-1,
maxNrOfPrioOueues,
maxNrOfPrioQueues-1,
maxNrOfSatAlmanac-maxNoSat,
id-Allowed-Rate-Information,
id-AntennaColocationIndicator,
id-BindingID,
id-Cell-Capacity-Class-Value,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
id-CoverageIndicator,
id-DPC-Mode-Change-SupportIndicator,
id-DSCH-Specific-FDD-Additional-List,
id-GERAN-Cell-Capability,
id-GERAN-Classmark,
id-Guaranteed-Rate-Information,
id-HCS-Prio.
id-Load-Value,
id-Load-Value-IncrDecrThres,
id-Neighbouring-GSM-CellInformation,
id-Neighbouring-UMTS-CellInformationItem,
id-neighbouring-LCR-TDD-CellInformation,
id-NRT-Load-Information-Value,
```

-- A

```
id-NRT-Load-Information-Value-IncrDecrThres,
    id-OnModification.
    id-Received-Total-Wideband-Power-Value.
    id-Received-Total-Wideband-Power-Value-IncrDecrThres.
    id-RT-Load-Value.
    id-RT-Load-Value-IncrDecrThres,
    id-SFNSFNMeasurementThresholdInformation,
    id-SNA-Information,
    id-TrafficClass.
    id-Transmitted-Carrier-Power-Value,
    id-Transmitted-Carrier-Power-Value-IncrDecrThres,
    id-TUTRANGPSMeasurementThresholdInformation.
    id-UL-Timeslot-ISCP-Value,
    id-UL-Timeslot-ISCP-Value-IncrDecrThres,
   maxNrOfLevels.
   maxNrOfMeasNCell.
   maxNrOfMeasNCell-1,
    id-MessageStructure,
    id-EnhancedDSCHPC,
    id-RestrictionStateIndicator,
    id-Rx-Timing-Deviation-Value-LCR,
    id-TransportLayerAddress,
    id-TypeOfError,
    id-Angle-Of-Arrival-Value-LCR,
    id-IPDL-TDD-ParametersLCR,
    id-DSCH-InitialWindowSize,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-HS-SICH-Reception-Quality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-ExtendedGSMCellIndividualOffset,
    id-Unidirectional-DCH-Indicator,
    id-RTLoadValue,
    id-NRTLoadInformationValue,
    id-Satellite-Almanac-Information-ExtItem,
    id-TnlQos
FROM RNSAP-Constants
    Criticality,
    ProcedureID,
    ProtocolIE-ID,
   TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes
    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;
```

```
AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN
    transmission-Gap-Pattern-Sequence-Status Transmission-Gap-Pattern-Sequence-Status-List
                                                                                                 OPTIONAL,
                       ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                           ::= INTEGER(1..256)
AdjustmentPeriod
-- Unit Frame
AllocationRetentionPriority ::= SEQUENCE {
    priorityLevel
                               PriorityLevel,
   pre-emptionCapability
                               Pre-emptionCapability,
    pre-emptionVulnerability
                               Pre-emptionVulnerability,
                           ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
    iE-Extensions
AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate-Information ::= SEQUENCE {
    allowed-UL-Rate
                           Allowed-Rate OPTIONAL,
    allowed-DL-Rate
                           Allowed-Rate OPTIONAL,
    iE-Extensions
                           ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate
                       ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
AllowedOueuingTime
                         ::= INTEGER (1..60)
-- seconds
AlphaValue
                            ::= INTEGER (0..8)
-- Actual value = Alpha / 8
Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
                           AOA-LCR,
    aOA-LCR
```

```
aOA-LCR-Accuracy-Class AOA-LCR-Accuracy-Class,
   iE-Extensions
                           ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
Angle-Of-Arrival-Value-LCR-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD
AOA-LCR-Accuracy-Class ::= ENUMERATED {a,b,c,d,e,f,q,h,...}
AntennaColocationIndicator ::= ENUMERATED {
    co-located,
-- B
BadSatellites ::= SEQUENCE {
    badSatelliteInformation
                                SEQUENCE (SIZE (1..maxNoSat)) OF
        SEOUENCE {
           badSAT-ID
                                        SAT-ID,
           iE-Extensions
                                        ProtocolExtensionContainer { { BadSatelliteInformation-ExtIEs} }
                                                                                                              OPTIONAL,
                                ProtocolExtensionContainer { { BadSatellites-ExtIEs} }
    iE-Extensions
                                                                                            OPTIONAL,
BadSatelliteInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
BadSatellites-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Band-Indicator ::= ENUMERATED {
    dcs1800Band,
    pcs1900Band,
BCC ::= BIT STRING (SIZE (3))
BCCH-ARFCN ::= INTEGER (0..1023)
BetaCD ::= INTEGER (0..15)
BindingID
                       ::= OCTET STRING (SIZE (1..4,...))
-- If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2.
```

```
BLER
                        ::= INTEGER (-63..0)
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER
SCTD-Indicator ::= ENUMERATED {
    active,
    inactive
BSIC ::= SEQUENCE {
    nCC
                NCC,
    bCC
                BCC
BurstModeParameters ::= SEQUENCE {
    burstStart
                    INTEGER (0..15),
    burstLength
                    INTEGER (10..25),
    burstFreq
                    INTEGER (1..16),
                                ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }
    iE-Extensions
                                                                                                    OPTIONAL,
BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- C
Cause ::= CHOICE {
    radioNetwork
                        CauseRadioNetwork,
    transport
                        CauseTransport,
    protocol
                        CauseProtocol,
    misc
                        CauseMisc,
    . . .
CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    om-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    . . .
CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
```

```
CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    combining-not-supported,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    requested-tx-diversity-mode-not-supported,
    measurement-temporaily-not-available,
    unspecified,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    dedicated-transport-channel-type-not-supported,
    dl-shared-channel-type-not-supported,
    ul-shared-channel-type-not-supported,
    common-transport-channel-type-not-supported,
    ul-spreading-factor-not-supported,
    dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b,
    rl-already-activated-or-alocated,
    . . . ,
    number-of-UL-codes-not-supported,
    cell-reserved-for-operator-use,
    dpc-mode-change-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    power-balancing-status-not-compatible,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported,
    unknown-RNTI
CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified.
CellCapabilityContainer-FDD ::= BIT STRING (SIZE (32))
-- First bit: Flexible Hard Split Support Indicator
-- Second bit: Delayed Activation Support Indicator
-- Third bit: HS-DSCH Support Indicator
-- Fourth bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
```

```
CellCapabilityContainer-TDD ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD-LCR ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Second bit: HS-DSCH Support Indicator
-- Third bit: DSCH Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
C-ID
                       ::= INTEGER (0..65535)
CCTrCH-ID
                       ::= INTEGER (0..15)
Cell-Capacity-Class-Value ::= SEQUENCE {
       uplinkCellCapacityClassValue
                                            INTEGER(1..100,...),
        downlinkCellCapacityClassValue
                                            INTEGER(1..100,...)
CellIndividualOffset ::= INTEGER (-20..20)
CellParameterID
                            ::= INTEGER (0..127,...)
CFN
                    ::= INTEGER (0..255)
CGI ::= SEQUENCE {
   lai
                SEQUENCE {
       pLMN-Identity PLMN-Identity,
                        LAC,
                                ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
       iE-Extensions
    сI
                    CI,
    iE-Extensions
                            ProtocolExtensionContainer { {CGI-ExtIEs} } OPTIONAL
LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
```

```
ChipOffset
                        ::= INTEGER (0..38399)
                    ::= OCTET STRING (SIZE (2))
CI
ClosedLoopModel-SupportIndicator
                                     ::= ENUMERATED {
    closedLoop-Model-Supported,
    closedLoop-Model-not-Supported
ClosedLoopMode2-SupportIndicator
                                     ::= ENUMERATED
    closedLoop-Mode2-Supported,
    closedLoop-Mode2-not-Supported
Closedlooptimingadjustmentmode ::= ENUMERATED {
    adj-1-slot,
    adi-2-slot,
    . . .
CodeNumber ::= INTEGER (0..maxCodeNumComp-1)
CodingRate ::= ENUMERATED {
    half,
    third.
    . . .
CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass
                                             TUTRANGPSAccuracyClass,
CommonMeasurementType ::= ENUMERATED {
    uTRAN-GPS-timing-of-cell-frames-for-UE-Positioning,
    sFN-SFN-observerd-time-difference,
    load,
    transmitted-carrier-power,
    received-total-wide-band-power,
    uplink-timeslot-iscp,
    . . . ,
    rT-load,
    nRT-load-Information
-- For measurements on the Iur-q interface, only load, RT Load and NRT Load information are requested.
CommonMeasurementValue ::= CHOICE {
    tUTRANGPSMeasurementValueInformation
                                             TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation
                                             SFNSFNMeasurementValueInformation,
    loadValue
                                        LoadValue,
    transmittedCarrierPowerValue
                                         INTEGER(0..100),
    receivedTotalWideBandPowerValue
                                        INTEGER(0..621),
    uplinkTimeslotISCPValue
                                        UL-TimeslotISCP,
```

```
extension-CommonMeasurementValue
                                        Extension-CommonMeasurementValue
Extension-CommonMeasurementValue
                                    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}
Extension-CommonMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
      ID id-RTLoadValue CRITICALITY ignore TYPE RTLoadValue
                                                                PRESENCE mandatory } |
     ID id-NRTLoadInformationValue CRITICALITY ignore TYPE NRTLoadInformationValue
                                                                                         PRESENCE mandatory }
-- For measurements on the Iur-q interface, only load, RT Load and NRT Load values are reported.
CommonMeasurementValueInformation ::= CHOICE {
                                CommonMeasurementAvailable,
   measurementAvailable
    measurementnotAvailable
                                NULL
CommonMeasurementAvailable::= SEOUENCE {
    commonMeasurementValue
                                CommonMeasurementValue,
   iE-Extensions
                                    ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }
                                                                                                                 OPTIONAL,
CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CongestionCause ::= ENUMERATED
    uTRAN-dynamic-resources,
    uTRAN-semistatic-resources,
CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED
    not-Required
CoverageIndicator ::= ENUMERATED {
   overlap,
    covers,
    containedIn,
CRC-Size
                        ::= ENUMERATED {
   v0,
    v8,
    v12.
    v16,
    v24,
    . . .
```

```
CriticalityDiagnostics ::= SEQUENCE {
    procedureID
                                ProcedureID
                                                    OPTIONAL,
    triggeringMessage
                                TriggeringMessage
                                                         OPTIONAL.
    procedureCriticality
                                Criticality
                                                         OPTIONAL,
    transactionID
                                TransactionID
                                                        OPTIONAL.
    iEsCriticalityDiagnostics
                                    CriticalityDiagnostics-IE-List OPTIONAL,
                                ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    iE-Extensions
CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CriticalityDiagnostics-IE-List ::= SEOUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality
                                Criticality,
       iE-ID
                                ProtocolIE-ID,
        repetitionNumber
                                RepetitionNumber0
                                                         OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
        . . .
CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-MessageStructure
                                                                                         PRESENCE optional }
                                CRITICALITY ignore
                                                        EXTENSION MessageStructure
   ID id-TypeOfError
                                CRITICALITY ignore
                                                        EXTENSION TypeOfError
                                                                                         PRESENCE mandatory },
    . . .
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEOUENCE {
       iE-ID
                                ProtocolIE-ID,
        repetitionNumber
                                RepetitionNumber1
                                                         OPTIONAL,
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                       PLMN-Identity,
    lAC
                        ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
    iE-Extensions
CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-PS-DomainIdentifier ::= SEQUENCE {
                        PLMN-Identity,
    pLMN-Identity
```

```
lac
                        LAC,
   rAC
                        RAC.
    iE-Extensions
                        ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                ::= ENUMERATED {
CNDomainType
    cs-domain,
   ps-domain,
    dont-care,
-- See in [16]
COI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,...}
CQI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
CQI-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
C-RNTI
                        ::= INTEGER (0..65535)
-- D
DATA-ID ::= INTEGER (0..3)
DCH-FDD-Information
                        ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem
DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
   ul-FP-Mode
                                        UL-FP-Mode,
    toAWS
                                        ToAWS,
    toAWE
                                        ToAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-FDD-InformationList,
                                        ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos
                            CRITICALITY
                                                         EXTENSION
                                                                     TnlQos
                                                                                 PRESENCE
                                                                                             optional },
                                            ignore
    . . .
DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item
DCH-Specific-FDD-Item ::= SEQUENCE {
    dCH-ID
                                        DCH-ID,
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
    ul-transportFormatSet
                                        TransportFormatSet,
    dl-transportFormatSet
                                        TransportFormatSet,
```

```
ul-BLER
                                        BLER,
    dl-BLER
                                        BLER.
                                        AllocationRetentionPriority,
    allocationRetentionPriority
    frameHandlingPriority
                                        FrameHandlingPriority,
    qE-Selector
                                        OE-Selector,
                                        DRACControl,
    dRACControl
                                        ProtocolExtensionContainer { { DCH-FDD-SpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-FDD-SpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                           PRESENCE optional }
     ID id-TrafficClass
                                            CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory |
     ID id-Unidirectional-DCH-Indicator
                                            CRITICALITY reject EXTENSION Unidirectional-DCH-Indicator
                                                                                                           PRESENCE optional },
DCH-ID
                        ::= INTEGER (0..255)
DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem
DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID
                                DCH-ID,
    bindingID
                                BindingID
                                                        OPTIONAL,
    transportLayerAddress
                                TransportLayerAddress OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
    . . .
DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            CRITICALITY ignore EXTENSION Allowed-Rate-Information
    { ID id-Allowed-Rate-Information
                                                                                                        PRESENCE optional },
DCH-TDD-Information
                        ::= SEOUENCE (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 RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlQos
                                        CRITICALITY
                                                        ignore
                                                                    EXTENSION
                                                                                TnlQos
                                                                                             PRESENCE
                                                                                                        optional },
    . . .
DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item
DCH-Specific-TDD-Item ::= SEQUENCE {
```

```
dCH-ID
                                      DCH-ID,
   ul-cCTrCH-ID
                                      CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
   dl-cCTrCH-ID
                                      CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
    trCH-SrcStatisticsDescr
                                     TrCH-SrcStatisticsDescr,
    ul-transportFormatSet
                                      TransportFormatSet,
   dl-transportFormatSet
                                     TransportFormatSet,
   ul-BLER
                                      BLER,
   dl-BLER
                                      BLER,
   allocationRetentionPriority
                                     AllocationRetentionPriority,
    frameHandlingPriority
                                      FrameHandlingPriority,
   qE-Selector
                                     OE-Selector
                                                        OPTIONAL,
    -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
                                     ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                         CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                     PRESENCE optional }
     ID id-TrafficClass
                                         CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory |
     ID id-Unidirectional-DCH-Indicator
                                         CRITICALITY reject EXTENSION Unidirectional-DCH-Indicator
                                                                                                     PRESENCE optional },
DedicatedMeasurementType ::= ENUMERATED {
    sir.
    sir-error.
   transmitted-code-power,
    rx-timing-deviation,
   round-trip-time,
   rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR,
   hs-sich-quality
DedicatedMeasurementValue ::= CHOICE {
    sIR-Value
                      SIR-Value,
    sIR-ErrorValue
                          SIR-Error-Value,
    transmittedCodePowerValue Transmitted-Code-Power-Value,
                      RSCP-Value, -- TDD only
    rxTimingDeviationValue Rx-Timing-Deviation-Value, -- 3.84Mcps TDD only
   roundTripTime
                      Round-Trip-Time-Value, -- FDD only
    extension-DedicatedMeasurementValue
                                         Extension-DedicatedMeasurementValue
Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}
Extension-DedicatedMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
     ID id-Angle-Of-Arrival-Value-LCR
                                         CRITICALITY reject TYPE Angle-Of-Arrival-Value-LCR PRESENCE mandatory }
     ID id-HS-SICH-Reception-Quality
                                         CRITICALITY reject TYPE HS-SICH-Reception-Quality-Value PRESENCE mandatory },
```

```
DedicatedMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                                DedicatedMeasurementAvailable,
    measurementnotAvailable
                                DedicatedMeasurementnotAvailable
DedicatedMeasurementAvailable::= SEOUENCE {
    dedicatedmeasurementValue
                                    DedicatedMeasurementValue,
                                                             OPTIONAL,
    ie-Extensions
                                     ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} }
                                                                                                                     OPTIONAL,
    . . .
DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementnotAvailable ::= NULL
DelayedActivation ::= CHOICE {
                            CFN,
                            NULL
    separate-indication
DelayedActivationUpdate ::= CHOICE {
    activate
                    Activate-Info,
    deactivate
                    Deactivate-Info
Activate-Info ::= SEQUENCE {
    activation-type
                            Execution-Type,
    initial-dl-tx-power
                            DL-Power,
                            FirstRLS-Indicator
    firstRLS-Indicator
                                                                                         OPTIONAL, --FDD Only
    propagation-delay
                            PropagationDelay
                                                                                         OPTIONAL, --FDD Only
                            ProtocolExtensionContainer { { Activate-Info-ExtIEs} }
    iE-Extensions
                                                                                         OPTIONAL,
Activate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Deactivate-Info ::= SEQUENCE {
    deactivation-type
                            Execution-Type,
                            ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }
    iE-Extensions
                                                                                              OPTIONAL,
    . . .
Deactivate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Execution-Type ::= CHOICE {
           synchronised
                                                    CFN,
           unsynchronised NULL
DeltaSIR
                                                            ::= INTEGER (0..30)
-- Step 0.1 dB, Range 0..3 dB.
DGPSCorrections ::= SEQUENCE {
           gPSTOW
                                                                                                                   GPSTOW,
           gPS-Status-Health
                                                                                                                    GPS-Status-Health,
           satellite-DGPSCorrections-Information SEQUENCE (SIZE (1..maxNoSat)) OF
                     SEQUENCE {
                               sAT-ID
                                                                                                                              SAT-ID,
                               iode-daps
                                                                                                                              BIT STRING (SIZE (8)),
                               uDRE
                                                                                                                              UDRE,
                               pRC
                                                                                                                              PRC,
                               range-Correction-Rate
                                                                                                                              Range-Correction-Rate,
                                                                                                                              ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }
                               iE-Extensions
                                                                                                                                                                                                                                                                                                                                                      OPTIONAL,
                     },
                                                                                               iE-Extensions
                                                                                                                                                                                                                                                                 OPTIONAL,
           . . .
Satellite-DGPSCorrections-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DGPSThreshold ::= SEQUENCE {
          pRCDeviation
                                                            PRCDeviation,
          iE-Extensions
                                                              ProtocolExtensionContainer { { DGPSThreshold-ExtIEs} }
                                                                                                                                                                                                                             OPTIONAL,
DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiscardTimer ::= ENUMERATED
\{v20, v40, v60, v80, v100, v120, v140, v160, v180, v200, v250, v300, v400, v500, v750, v1000, v1250, v1500, v1750, v2000, v2500, v3000, v3500, v4000, v4500, v5000, v7500, v7500, v1000, v10000, v1000, v10
DiversityControlField
                                                                                    ::= ENUMERATED {
          may,
```

```
must,
    must-not
DiversityMode
                           ::= ENUMERATED {
    none,
    sTTD,
    closedLoopModel,
    closedLoopMode2,
                            ::= INTEGER (0..16,...)
DL-DPCH-SlotFormat
DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
                        ::= INTEGER (-350..150)
DL-Power
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step 0.1dB
DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType
                                        PowerAdjustmentType,
    dLReferencePower
                                        DL-Power
                                                        OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList
                                DL-ReferencePowerInformationList
                                                                         OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
                                        MaxAdjustmentStep
    maxAdjustmentStep
                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod
                                        AdjustmentPeriod
                                                                OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                                        ScaledAdjustmentRatio OPTIONAL,
    adjustmentRatio
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                                        ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    iE-Extensions
DL-PowerBalancing-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-ReferencePowerInformationList
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem
DL-ReferencePowerInformationItem ::= SEOUENCE {
   rL-ID
                                RL-ID,
    dl-Reference-Power
   iE-Extensions
                                ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    . . .
DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
DL-PowerBalancing-ActivationIndicator ::= ENUMERATED {
    dL-PowerBalancing-Activated
DL-PowerBalancing-UpdatedIndicator ::= ENUMERATED {
    dL-PowerBalancing-Updated
DL-ReferencePowerInformation
                                ::= SEQUENCE {
    common-DL-ReferencePowerInformation
                                                DL-Power
                                                                OPTIONAL,
    individual-DL-ReferencePowerInformation
                                                DL-ReferencePowerInformationList
                                                                                         OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
DL-ReferencePowerInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
D-RNTI
                        ::= INTEGER (0..1048575)
D-RNTI-ReleaseIndication ::= ENUMERATED {
    release-D-RNTI,
    not-release-D-RNTI
DL-ScramblingCode
                            ::= INTEGER (0..15)
DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    . . .
DL-Timeslot-Information ::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem
DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
    tFCI-Presence
                                    TFCI-Presence,
    dL-Code-Information
                                    TDD-DL-Code-Information,
                                    ProtocolExtensionContainer { {DL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF DL-TimeslotLCR-InformationItem
DL-TimeslotLCR-InformationItem ::= SEQUENCE {
```

```
timeSlotLCR
                                         TimeSlotLCR,
   midambleShiftLCR
                                         MidambleShiftLCR.
   tFCI-Presence
                                         TFCI-Presence.
   dL-Code-LCR-Information
                                     TDD-DL-Code-LCR-Information,
   iE-Extensions
                                         ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }
DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   PRESENCE optional } |
   -- Applicable to 1.28Mcps TDD only
   { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem
                                                                                                               PRESENCE optional },
                                                      CRITICALITY ignore EXTENSION DL-Power
   -- Applicable to 1.28Mcps TDD only
DL-TimeSlot-ISCP-Info ::= SEOUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem
DL-TimeSlot-ISCP-InfoItem ::= SEOUENCE {
   timeSlot
   dL-TimeslotISCP
                              DL-TimeslotISCP.
                              ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem
DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
   timeSlotLCR
                                 TimeSlotLCR.
   dL-TimeslotISCP
                                 DL-TimeslotISCP,
                                 ProtocolExtensionContainer { { DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }
   iE-Extensions
                                                                                                       OPTIONAL.
DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotISCP
                      ::= INTEGER (0..91)
-- According to mapping in [24]
Downlink-Compressed-Mode-Method
                                 ::= ENUMERATED
   puncturing,
   sFdiv2,
   higher-layer-scheduling,
DPC-Mode ::= ENUMERATED {
   mode0,
```

```
mode1,
DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
   dPC-ModeChangeSupported
DPCH-TD
                        ::= INTEGER (0..239)
DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
DRACControl
                ::= ENUMERATED
   requested,
    not-requested
DRXCycleLengthCoefficient
                                        ::= INTEGER (3..9)
-- See in [16]
DSCH-FDD-Information::= SEQUENCE {
    dSCH-Specific-Information
                                        DSCH-Specific-FDD-Item,
-- This DSCH-Specific-FDD-Item is the first DSCH-Specific-FDD-Item in DSCH-FDD-Information. If more than one DSCH-Specific-FDD-Item;s should be
defined in a DSCH-FDD-Information, from 2<sup>nd</sup> DSCH-Specific-FDD Item, they will be included in the DSCH-Specific-FDD-Additional-List in the DSCH-FDD-
Information-ExtIEs.
    pdSCH-RL-ID
                                        RL-ID,
    t.FCS
                                        TFCS.
                                        ProtocolExtensionContainer { {DSCH-FDD-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-FDD-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::=
     ID id-DSCH-Specific-FDD-Additional-List
                                                     CRITICALITY reject EXTENSION DSCH-Specific-FDD-Additional-List
                                                                                                                            PRESENCE optional } |
    { ID id-EnhancedDSCHPC
                                        CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                                      PRESENCE optional },
    . . .
DSCH-RNTI ::= INTEGER (0..65535)
DSCH-Specific-FDD-Item ::= SEQUENCE {
   dSCH-ID
                                        DSCH-ID.
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    bLER
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-Specific-FDD-Item-ExtIEs} } OPTIONAL,
DSCH-Specific-FDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                 PRESENCE mandatory}
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                                                                      optional }|
                                                                     EXTENSION
                                                                                 BindingID
                                                                                                  PRESENCE
```

```
-- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
DSCH-Specific-FDD-Additional-List ::= SEQUENCE (SIZE(1..maxNoOfDSCHs-1)) OF DSCH-Specific-FDD-Item
DSCH-FDD-InformationResponse ::= SEQUENCE {
    dsch-Specific-InformationResponse
                                       DSCH-Specific-FDD-InformationResponse,
    pdSCHCodeMapping
                                        PDSCHCodeMapping,
                                        ProtocolExtensionContainer { { DSCH-FDD-InformationResponse-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-FDD-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Specific-FDD-InformationResponse ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-Specific-FDD-Response-Item
DSCH-Specific-FDD-Response-Item ::= SEQUENCE {
    dsch-ID
                                    DSCH-ID,
    dSCH-FlowControlInformation
                                    DSCH-FlowControlInformation.
   bindingID
                                    BindingID
                                                            OPTIONAL,
    transportLayerAddress
                                    TransportLayerAddress OPTIONAL,
                                    ProtocolExtensionContainer { {DSCH-Specific-FDD-Response-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-Specific-FDD-Response-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-FlowControlInformation ::= SEQUENCE (SIZE(1..16)) OF DSCH-FlowControlItem
DSCH-FlowControlItem ::= SEQUENCE {
    dSCH-SchedulingPriority
                                        SchedulingPriorityIndicator,
                                        MAC-c-sh-SDU-LengthList,
   mAC-c-sh-SDU-Lengths
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-InitialWindowSize CRITICALITY ignore EXTENSION DSCH-InitialWindowSize PRESENCE optional },
DSCH-ID
                        ::= INTEGER (0..255)
DSCH-InitialWindowSize
                                ::= INTEGER (1..255)
-- Number of MAC-c/sh SDUs.
-- 255 = Unlimited number of MAC-c/sh SDUs
```

```
DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem
DSCH-TDD-InformationItem ::= SEQUENCE {
    dsch-ID
                                        DSCH-ID,
    dl-ccTrCHID
                                        CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    bLER
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    . . .
DSCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                            CRITICALITY ignore EXTENSION TrafficClass
                                                                                            PRESENCE mandatory}
    { ID id-BindingID
                                            CRITICALITY ignore EXTENSION BindingID
                                                                                                                    optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                                                                                                 optional },
                                            CRITICALITY ignore EXTENSION TransportLayerAddress
    -- Shall be ignored if bearer establishment with ALCAP.
DsField ::= BIT STRING (SIZE (8))
-- E
EnhancedDSCHPC ::= SEQUENCE {
    enhancedDSCHPCWnd EnhancedDSCHPCWnd,
    enhancedDSCHPCCounter EnhancedDSCHPCCounter,
    enhancedDSCHPowerOffset EnhancedDSCHPowerOffset,
EnhancedDSCHPCCounter ::= INTEGER (1..50)
EnhancedDSCHPCIndicator ::= ENUMERATED {
    enhancedDSCHPCActiveInTheUE,
    enhancedDSCHPCNotActiveInTheUE
EnhancedDSCHPCWnd ::= INTEGER (1..10)
EnhancedDSCHPowerOffset ::= INTEGER (-15..0)
Enhanced-PrimaryCPICH-EcNo
                                    ::= INTEGER (0..49)
EventA ::= SEQUENCE {
    measurementTreshold
                            MeasurementThreshold,
    measurementHysteresisTime MeasurementHysteresisTime
                            ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventB ::= SEQUENCE {
                           MeasurementThreshold,
    measurementTreshold
    measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
    iE-Extensions
                           ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventC ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                               MeasurementChangeTime,
                           ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventD ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold
                                          MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                               MeasurementChangeTime,
                           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
   iE-Extensions
EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventE ::= SEQUENCE {
    measurementThreshold1
                                MeasurementThreshold,
    measurementThreshold2
                                MeasurementThreshold
                                                                OPTIONAL,
    measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
    reportPeriodicity
                           ReportPeriodicity
                                                       OPTIONAL,
                            ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
    iE-Extensions
EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventF ::= SEQUENCE {
   measurementThreshold1
                                MeasurementThreshold,
                                MeasurementThreshold
    measurementThreshold2
                                                                OPTIONAL,
```

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```
measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
    reportPeriodicity
                            ReportPeriodicity
                                                        OPTIONAL.
    iE-Extensions
                            ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExtendedGSMCellIndividualOffset ::= INTEGER (-50..-11|11..50)
-- F
FACH-FlowControlInformation ::= SEQUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem
FACH-FlowControlInformationItem ::= SEQUENCE {
    fACH-SchedulingPriority
                                    SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths
                                    MAC-c-sh-SDU-LengthList,
    fACH-InitialWindowSize
                                    FACH-InitialWindowSize,
    iE-Extensions
                                    ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                ::= INTEGER { unlimited(255) } (0..255)
FACH-InitialWindowSize
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames
FACH-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfFACHs)) OF FACH-InformationItem
FACH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
    iE-Extensions
                                    ProtocolExtensionContainer { { FACH-InformationItem-ExtIEs} } OPTIONAL,
FACH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-PCH-InformationList ::= SEOUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem
FACH-PCH-InformationItem ::= SEOUENCE {
    transportFormatSet
                                    TransportFormatSet,
    iE-Extensions
                                    ProtocolExtensionContainer { { FACH-PCH-InformationItem-ExtIEs} } OPTIONAL,
FACH-PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
FDD-DCHs-to-Modify
                                ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem
FDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode
                                        UL-FP-Mode
                                                         OPTIONAL,
    toAWS
                                        ToAWS
                                                    OPTIONAL,
    toAWE
                                        ToAWE
                                                    OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        FDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    . . .
FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlOos
                                        CRITICALITY
                                                        ignore
                                                                     EXTENSION
                                                                                TnlOos PRESENCE optional },
    . . .
FDD-DCHs-to-ModifySpecificInformationList ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifySpecificItem
FDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
    ul-TransportformatSet
                                    TransportFormatSet
                                                             OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority
                                                                     OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority
                                                                OPTIONAL,
    dRACControl
                                    DRACControl
                                                    OPTIONAL,
                                    ProtocolExtensionContainer { {FDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
FDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional }
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                 PRESENCE optional }.
    . . .
FDD-DL-ChannelisationCodeNumber
                                    ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--
FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF FDD-DL-CodeInformationItem
FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode
                                                                DL-ScramblingCode,
                                                                FDD-DL-ChannelisationCodeNumber,
    fDD-DL-ChannelisationCodeNumber
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information
                                                                         Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
                                            ProtocolExtensionContainer { {FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FDD-DL-CodeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
FDD-S-CCPCH-Offset
                            ::= INTEGER (0..149)
FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-sizel,
    step-size1-5,
    step-size2,
SchedulingPriorityIndicator
                                        ::= INTEGER { lowest(0), highest(15) } (0..15)
FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS
FNReportingIndicator ::= ENUMERATED {
    fN-reporting-required,
    fN-reporting-not-required
FPACH-Information ::= SEOUENCE {
                                TimeSlotLCR,
    timeSlotLCR
    tDD-ChannelisationCodeLCR
                                TDD-ChannelisationCodeLCR,
    midambleShiftLCR
                                MidambleShiftLCR,
    wΤ
                                INTEGER (1..4),
FrameHandlingPriority
                                ::= INTEGER { lowest(0), highest(15) } (0..15)
FrameOffset
                        ::= INTEGER (0..255)
-- Frames
-- G
GapLength
                        ::= INTEGER (1..14)
-- Unit Slot
GapDuration
                        ::= INTEGER (1..144,...)
-- Unit Frame
GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEQUENCE {
        cell-GAIgeographicalCoordinate
                                            GeographicalCoordinate,
                                ProtocolExtensionContainer { {GA-Cell-ExtIEs} } OPTIONAL,
        iE-Extensions
GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
GA-CellAdditionalShapes ::= CHOICE {
    pointWithUncertainty
                                                     GA-PointWithUnCertainty,
    pointWithUncertaintyEllipse
                                                    GA-PointWithUnCertaintyEllipse,
    pointWithAltitude
                                                     GA-PointWithAltitude,
    pointWithAltitudeAndUncertaintyEllipsoid
                                                    GA-PointWithAltitudeAndUncertaintyEllipsoid,
                                                    GA-EllipsoidArc,
    ellipsoidArc
GA-AltitudeAndDirection ::= SEQUENCE {
                            ENUMERATED {height, depth},
    directionOfAltitude
                            INTEGER (0..32767),
    altitude
    . . .
GA-EllipsoidArc ::= SEOUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    innerRadius
                                INTEGER (0..65535),
    uncertaintyRadius
                                INTEGER (0..127),
    offsetAngle
                                INTEGER (0..179),
    includedAngle
                                INTEGER (0..179),
    confidence
                                INTEGER (0..127),
                                ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitude ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    altitudeAndDirection
                                GA-AltitudeAndDirection,
                                ProtocolExtensionContainer { GA-PointWithAltitude-ExtIEs} } OPTIONAL,
   iE-Extensions
GA-PointWithAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    altitudeAndDirection
                                GA-AltitudeAndDirection,
    uncertaintyEllipse
                                GA-UncertaintyEllipse,
    uncertaintyAltitude
                                INTEGER (0..127),
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs} } OPTIONAL,
    . . .
GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
GA-PointWithUnCertaintyEllipse ::= SEOUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    uncertaintyEllipse
                                GA-UncertaintyEllipse,
    confidence
                                INTEGER (0..127),
                                ProtocolExtensionContainer { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-UncertaintyEllipse ::= SEQUENCE {
    uncertaintySemi-major
                                INTEGER (0..127),
    uncertaintySemi-minor
                                INTEGER (0..127),
    orientationOfMajorAxis
                                INTEGER (0..179),
                                                   -- The values 90..179 shall not be used.
    . . .
GA-PointWithUnCertainty ::=SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    uncertaintyCode
                           INTEGER (0..127),
                           ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-PointWithUnCertainty-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-AccessPointPosition ::= SEQUENCE {
                               GeographicalCoordinate,
    geographicalCoordinate
   iE-Extensions
                           ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GeographicalCoordinate ::= SEQUENCE {
                           ENUMERATED { north, south },
   latitudeSign
   latitude
                       INTEGER (0..8388607),
   longitude
                       INTEGER (-8388608..8388607),
   iE-Extensions
                           ProtocolExtensionContainer { GeographicalCoordinate-ExtIEs} } OPTIONAL,
GeographicalCoordinate-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
GERAN-Cell-Capability ::= BIT STRING (SIZE (16))
-- First bit: A/Gb mode --
-- Second bit: Iu mode --
-- Note: undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver. --
GERAN-Classmark ::=
                            OCTET STRING
    -- GERAN Classmark as defined in (38) --
GenericTrafficCategory ::= BIT STRING (SIZE (8))
GPS-Almanac ::= SEQUENCE {
    wn_-alm
                            BIT STRING (SIZE (8)),
    satellite-Almanac-Information
                                        SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
           data-id
                                DATA-ID,
           sAT-ID
                                SAT-ID,
                                BIT STRING (SIZE (16)),
           qps-e-alm
                                BIT STRING (SIZE (8)),
           qps-toa-alm
           qps-delta-I-alm
                                BIT STRING (SIZE (16)),
           omegadot-alm
                                BIT STRING (SIZE (16)),
           svhealth-alm
                                BIT STRING (SIZE (8)),
           gps-a-sgrt-alm
                                BIT STRING (SIZE (24)),
           omegazero-alm
                                BIT STRING (SIZE (24)),
           m-zero-alm
                                BIT STRING (SIZE (24)),
           gps-omega-alm
                                BIT STRING (SIZE (24)),
           gps-af-zero-alm
                                BIT STRING (SIZE (11)),
           qps-af-one-alm
                                BIT STRING (SIZE (11)),
           iE-Extensions
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} }
                                                                                                           OPTIONAL,
    -- This GPS-Almanac-Information is for the 1<sup>st</sup> 16 satellites
    sVGlobalHealth-alm
                           BIT STRING (SIZE (364))
                                                        OPTIONAL,
    iE-Extensions
                            ProtocolExtensionContainer { GPS-Almanac-ExtIEs} }
                                                                                        OPTIONAL,
Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Satellite-Almanac-Information-ExtItem CRITICALITY ignore
                                                                            EXTENSION Satellite-Almanac-Information-ExtItem
                                                                                                                                      PRESENCE
    optional},
Satellite-Almanac-Information-ExtItem ::= SEOUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF
        SEQUENCE {
           data-id
                                DATA-ID,
           sAT-ID
                                SAT-ID,
           qps-e-alm
                                BIT STRING (SIZE (16)),
           qps-toa-alm
                               BIT STRING (SIZE (8)),
           gps-delta-I-alm
                               BIT STRING (SIZE (16)),
           omegadot-alm
                                BIT STRING (SIZE (16)),
```

```
svhealth-alm
                                BIT STRING (SIZE (8)),
            qps-a-sqrt-alm
                                BIT STRING (SIZE (24)),
            omegazero-alm
                                BIT STRING (SIZE (24)),
           m-zero-alm
                                BIT STRING (SIZE (24)),
            qps-omega-alm
                                BIT STRING (SIZE (24)),
           qps-af-zero-alm
                                BIT STRING (SIZE (11)),
            gps-af-one-alm
                                BIT STRING (SIZE (11)),
            iE-Extensions
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtItemIEs} }
   Includes the GPS-Almanac-Information for the 17<sup>th</sup> through 32<sup>nd</sup> satellites.
Satellite-Almanac-Information-ExtItemIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPSInformation ::= SEQUENCE (SIZE (1..maxNoGPSTypes)) OF
    SEQUENCE ·
                                ENUMERATED {
        qPSInformationItem
            gPS-NavigationModel-and-TimeRecovery,
            gPS-Ionospheric-Model,
           gPS-UTC-Model,
           gPS-Almanac,
           gPS-RealTime-Integrity,
                                ProtocolExtensionContainer { GPSInformation-ExtIEs} }
        iE-Extensions
                                                                                             OPTIONAL,
-- This IE shall be present if the Information Type IE indicates "GPS Information"
GPSInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos
                           BIT STRING (SIZE (8)),
    alpha-one-ionos
                            BIT STRING (SIZE (8)),
    alpha-two-ionos
                            BIT STRING (SIZE (8)),
    alpha-three-ionos
                           BIT STRING (SIZE (8)),
    beta-zero-ionos
                            BIT STRING (SIZE (8)),
    beta-one-ionos
                            BIT STRING (SIZE (8)),
    beta-two-ionos
                            BIT STRING (SIZE (8)),
    beta-three-ionos
                            BIT STRING (SIZE (8)),
                            ProtocolExtensionContainer { GPS-Ionospheric-Model-ExtIEs} }
    iE-Extensions
                                                                                                  OPTIONAL,
GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF
    SEQUENCE {
```

```
INTEGER (0..1048575),
        tx-tow-nav
        sAT-ID
                                        SAT-ID,
        t.lm-message-nav
                                        BIT STRING (SIZE (14)).
        tlm-revd-c-nav
                                        BIT STRING (SIZE (2)),
       ho-word-nav
                                        BIT STRING (SIZE (22)),
       w-n-nav
                                        BIT STRING (SIZE (10)),
        ca-or-p-on-12-nav
                                        BIT STRING (SIZE (2)),
        user-range-accuracy-index-nav
                                        BIT STRING (SIZE (4)),
        sv-health-nav
                                        BIT STRING (SIZE (6)),
        iodc-nav
                                        BIT STRING (SIZE (10)),
       12-p-dataflag-nav
                                        BIT STRING (SIZE (1)),
        sfl-reserved-nav
                                        BIT STRING (SIZE (87)),
       t-qd-nav
                                        BIT STRING (SIZE (8)),
       t-oc-nav
                                        BIT STRING (SIZE (16)),
        a-f-2-nav
                                        BIT STRING (SIZE (8)),
        a-f-1-nav
                                        BIT STRING (SIZE (16)),
        a-f-zero-nav
                                        BIT STRING (SIZE (22)),
        c-rs-nav
                                        BIT STRING (SIZE (16)),
        delta-n-nav
                                        BIT STRING (SIZE (16)),
       m-zero-nav
                                        BIT STRING (SIZE (32)),
        c-uc-nav
                                        BIT STRING (SIZE (16)),
                                        BIT STRING (SIZE (32)),
        gps-e-nav
        c-us-nav
                                        BIT STRING (SIZE (16)),
        a-sgrt-nav
                                        BIT STRING (SIZE (32)),
        t-oe-nav
                                        BIT STRING (SIZE (16)),
        fit-interval-flag-nav
                                        BIT STRING (SIZE (1)),
        aodo-nav
                                        BIT STRING (SIZE (5)),
        c-ic-nav
                                        BIT STRING (SIZE (16)),
        omega-zero-nav
                                        BIT STRING (SIZE (32)),
        c-is-nav
                                        BIT STRING (SIZE (16)),
        i-zero-nav
                                        BIT STRING (SIZE (32)),
        c-rc-nav
                                        BIT STRING (SIZE (16)),
        gps-omega-nav
                                        BIT STRING (SIZE (32)),
        omegadot-nav
                                        BIT STRING (SIZE (24)),
        idot-nav
                                        BIT STRING (SIZE (14)),
        spare-zero-fill
                                        BIT STRING (SIZE (20)),
        iE-Extensions
                                        ProtocolExtensionContainer { { GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs} }
                                                                                                                              OPTIONAL,
        . . .
GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-RealTime-Integrity ::= CHOICE {
    badSatellites
                                BadSatellites,
    noBadSatellite
                                NULL
GPS-RX-POS ::= SEQUENCE {
    geographicalCoordinate
                                GeographicalCoordinate,
    altitudeAndDirection
                                GA-AltitudeAndDirection,
    iE-Extensions
                                ProtocolExtensionContainer { GPS-RX-POS-ExtIEs} } OPTIONAL,
    . . .
```

```
GPS-RX-POS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Status-Health ::= ENUMERATED {
  udre-1-0,
  udre-0-75,
  udre-0-5,
  udre-0-3,
  udre-0-1,
  no-data,
  invalid-data
GPSTOW ::= INTEGER (0..604799)
GPS-UTC-Model ::= SEQUENCE {
   a-one-utc
                           BIT STRING (SIZE (24)),
   a-zero-utc
                          BIT STRING (SIZE (32)),
                         BIT STRING (SIZE (8)),
    t-ot-utc
    delta-t-ls-utc
                         BIT STRING (SIZE (8)),
   w-n-t-utc
                          BIT STRING (SIZE (8)),
   w-n-lsf-utc
                         BIT STRING (SIZE (8)),
    dn-ut.c
                          BIT STRING (SIZE (8)),
   delta-t-lsf-utc
                       BIT STRING (SIZE (8)),
   iE-Extensions
                          ProtocolExtensionContainer { GPS-UTC-Model-ExtIEs} }
                                                                                      OPTIONAL,
GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate-Information ::= SEQUENCE {
   guaranteed-UL-Rate
                        Guaranteed-Rate OPTIONAL,
    quaranteed-DL-Rate
                               Guaranteed-Rate OPTIONAL,
    iE-Extensions
                               ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
    . . .
Guaranteed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate
                     ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
-- H
HARQ-MemoryPartitioning ::= CHOICE {
   implicit
                   HARQ-MemoryPartitioning-Implicit,
    explicit
                   HARQ-MemoryPartitioning-Explicit,
```

```
HARO-MemoryPartitioning-Implicit
                                  ::= SEOUENCE
    number-of-Processes
                                INTEGER (1..8,...),
                                ProtocolExtensionContainer { { HARO-MemoryPartitioning-Implicit-ExtIEs } }
    iE-Extensions
                                                                                                                 OPTIONAL,
HARQ-MemoryPartitioning-Implicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARQ-MemoryPartitioning-Explicit
                                    ::= SEOUENCE {
    hARO-MemoryPartitioningList
                                        HARO-MemoryPartitioningList,
    iE-Extensions
                                        ProtocolExtensionContainer { { HARO-MemoryPartitioning-Explicit-ExtIEs } }
                                                                                                                          OPTIONAL,
    . . .
HARO-MemoryPartitioning-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARO-MemoryPartitioningList ::= SEOUENCE (SIZE (1..maxNrOfHAROProc)) OF HARO-MemoryPartitioningItem
HARO-MemoryPartitioningItem ::= SEOUENCE {
    process-Memory-Size
                                        ENUMERATED {
                                        hms800, hms1600, hms2400, hms3200, hms4000,
                                        hms4800, hms5600, hms6400, hms7200, hms8000,
                                        hms8800, hms9600, hms10400, hms11200, hms12000,
                                        hms12800, hms13600, hms14400, hms15200, hms16000,
                                        hms17600, hms19200, hms20800, hms22400, hms24000,
                                        hms25600, hms27200, hms28800, hms30400, hms32000,
                                        hms36000, hms40000, hms44000, hms48000, hms52000,
                                        hms56000, hms60000, hms64000, hms68000, hms72000,
                                        hms76000, hms80000, hms88000, hms96000, hms104000,
                                        hms112000, hms120000, hms128000, hms136000, hms144000,
                                        hms152000, hms160000, hms176000, hms192000, hms208000,
                                        hms224000, hms240000, hms256000, hms272000, hms288000,
                                        hms304000,...},
                                        ProtocolExtensionContainer { { HARQ-MemoryPartitioningItem-ExtIEs } }
    iE-Extensions
                                                                                                                    OPTIONAL,
HARO-MemoryPartitioningItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HCS-Prio
         ::= INTEGER (0..7)
-- 0 = lowest priority, ...7 = highest priority
HSDSCH-FDD-Information ::= SEQUENCE {
    hSDSCH-MACdFlows-Information
                                                HSDSCH-MACdFlows-Information,
    uE-Capabilities-Info
                                                UE-Capabilities-Info,
    mAChs-Reordering-Buffer-Size-for-RLC-UM
                                                MAChsReorderingBufferSize-for-RLC-UM,
```

```
cgiFeedback-CycleK
                                                 CQI-Feedback-Cycle,
    cgiRepetitionFactor
                                                 COI-RepetitionFactor
                                                                                              OPTIONAL.
    -- This IE shall be present if the COI Feedback Cycle k IE is set to a value greater than 0.
    ackNackRepetitionFactor
                                                 AckNack-RepetitionFactor,
    cgiPowerOffset
                                                 COI-Power-Offset.
    ackPowerOffset
                                                 Ack-Power-Offset,
    nackPowerOffset
                                                 Nack-Power-Offset,
    hsscch-PowerOffset
                                                 HSSCCH-PowerOffset
                                                                                              OPTIONAL,
    iE-Extensions
                                                 ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } }
                                                                                                                         OPTIONAL,
HSDSCH-FDD-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-FDD-Information-Response ::= SEQUENCE
    hSDSCH-MACdFlow-Specific-InfoList-Response
                                                     HSDSCH-MACdFlow-Specific-InfoList-Response
                                                                                                                                     OPTIONAL,
    hSSCCH-Specific-InfoList-Response
                                                     HSSCCH-FDD-Specific-InfoList-Response
                                                                                                                                     OPTIONAL,
    hSPDSCH-and-HSSCCH-ScramblingCode
                                                     DL-ScramblingCode
                                                                                                                                     OPTIONAL,
    measurement-Power-Offset
                                                     Measurement-Power-Offset
                                                                                                                                     OPTIONAL,
    hARQ-MemoryPartitioning
                                                     HARQ-MemoryPartitioning
                                                                                                                                     OPTIONAL,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }
                                                                                                                                     OPTIONAL,
    . . .
HSDSCH-FDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Information-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                     HSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                                                                       OPTIONAL,
    priorityQueue-Info-to-Modify
                                                     PriorityQueue-InfoList-to-Modify
                                                                                                       OPTIONAL,
    mAChs-Reordering-Buffer-Size-for-RLC-UM
                                                     MAChsReorderingBufferSize-for-RLC-UM
                                                                                                       OPTIONAL,
    cgiFeedback-CycleK
                                                     COI-Feedback-Cvcle
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    cqiRepetitionFactor
                                                     CQI-RepetitionFactor
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                                       OPTIONAL,
                                                                                                                  -- For FDD only
    cqiPowerOffset
                                                     COI-Power-Offset
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    ackPowerOffset
                                                     Ack-Power-Offset
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    nackPowerOffset
                                                     Nack-Power-Offset
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    hsscch-PowerOffset
                                                     HSSCCH-PowerOffset
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    hSSCCH-CodeChangeGrant
                                                     HSSCCH-Code-Change-Grant
                                                                                                       OPTIONAL,
    tDDAckNackPowerOffset
                                                     TDD-AckNack-Power-Offset
                                                                                                      OPTIONAL,
                                                                                                                  -- For TDD only
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs } }
                                                                                                                                     OPTIONAL.
    . . .
HSDSCH-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Information-to-Modify-Unsynchronised ::= SEQUENCE
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                     HSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                                                                             OPTIONAL,
    priorityQueueInfotoModifyUnsynchronised
                                                     PriorityQueue-InfoList-to-Modify-Unsynchronised
                                                                                                                         OPTIONAL,
```

```
cqiPowerOffset
                                                     COI-Power-Offset
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    ackPowerOffset
                                                     Ack-Power-Offset
                                                                                     OPTIONAL.
                                                                                                 -- For FDD only
    nackPowerOffset.
                                                     Nack-Power-Offset
                                                                                     OPTIONAL.
                                                                                                 -- For FDD only
    hsscch-PowerOffset
                                                     HSSCCH-PowerOffset
                                                                                     OPTIONAL.
                                                                                                 -- Only for FDD
    tDDAckNackPowerOffset
                                                     TDD-AckNack-Power-Offset
                                                                                     OPTIONAL.
                                                                                                 -- For TDD only
                                                     ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs } }
    iE-Extensions
   OPTIONAL,
    . . .
HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)
HSDSCH-MACdFlow-Specific-InfoList ::= SEOUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem
HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    trafficClass
                                        TrafficClass,
                                        BindingID
    bindingID
                                                                                 OPTIONAL,
    transportLaverAddress
                                        TransportLaverAddress
                                                                                 OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }
                                                                                                                           OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response
HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEOUENCE
   hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation HSDSCH-Initial-Capacity-Allocation
                                                                                 OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                    OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                                 OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    trafficClass
                                        TrafficClass
                                                                                 OPTIONAL,
```

```
bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL.
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }
                                                                                                                                       OPTIONAL.
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlows-Information ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                                    HSDSCH-MACdFlow-Specific-InfoList,
   priorityOueue-Info
                                                    PriorityOueue-InfoList,
   iE-Extensions
                                                    ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }
                                                                                                                                    OPTIONAL
HSDSCH-MACdFlows-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlows-to-Delete ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlows-to-Delete-Item
HSDSCH-MACdFlows-to-Delete-Item ::= SEQUENCE {
    hsDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlows-to-Delete-Item-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
HSDSCH-MACdFlows-to-Delete-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-Initial-Capacity-Allocation: = SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF HSDSCH-Initial-Capacity-AllocationItem
HSDSCH-Initial-Capacity-AllocationItem ::= SEQUENCE {
    schedulingPriorityIndicator
                                    SchedulingPriorityIndicator,
    maximum-MACdPDU-Size
                                    MACdPDU-Size,
   hSDSCH-InitialWindowSize
                                    HSDSCH-InitialWindowSize,
                                    ProtocolExtensionContainer { {HSDSCH-Initial-Capacity-AllocationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
HSDSCH-Initial-Capacity-AllocationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-InitialWindowSize
                                    ::= INTEGER (1..255)
-- Number of MAC-d PDUs.
HSDSCH-RNTI ::= INTEGER (0..65535)
HSDSCH-TDD-Information ::= SEQUENCE {
```

```
hSDSCH-MACdFlows-Information
                                                HSDSCH-MACdFlows-Information,
    uE-Capabilities-Info
                                                UE-Capabilities-Info,
    mAChs-Reordering-Buffer-Size-for-RLC-UM
                                                MAChsReorderingBufferSize-for-RLC-UM,
    tDD-AckNack-Power-Offset
                                                TDD-AckNack-Power-Offset,
    iE-Extensions
                                                ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } }
                                                                                                                        OPTIONAL.
HSDSCH-TDD-Information-Extles RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Information-Response ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-InfoList-Response
                                                    HSDSCH-MACdFlow-Specific-InfoList-Response
                                                                                                      OPTIONAL,
   hSSCCH-TDD-Specific-InfoList-Response
                                                    HSSCCH-TDD-Specific-InfoList-Response
                                                                                                      OPTIONAL,
-- Not Applicable to 1.28Mcps TDD
   hSSCCH-TDD-Specific-InfoList-Response-LCR
                                                     HSSCCH-TDD-Specific-InfoList-Response-LCR
                                                                                                      OPTIONAL,
-- Not Applicable to 3.84Mcps TDD
    hSPDSCH-TDD-Specific-InfoList-Response
                                                     HSPDSCH-TDD-Specific-InfoList-Response
                                                                                                      OPTIONAL,
    hSPDSCH-TDD-Specific-InfoList-Response-LCR
                                                    HSPDSCH-TDD-Specific-InfoList-Response-LCR
                                                                                                      OPTIONAL,
    hARQ-MemoryPartitioning
                                                    HARQ-MemoryPartitioning
                                                                                                      OPTIONAL,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }
                                                                                                                                       OPTIONAL,
HSDSCH-TDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfDLTs)) OF HSPDSCH-TDD-Specific-InfoItem-Response
HSPDSCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot
                                                    TimeSlot,
   midambleShiftAndBurstType
                                                    MidambleShiftAndBurstType,
   iE-Extensions
                                                    ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
HSPDSCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSPDSCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF HSPDSCH-TDD-Specific-InfoItem-Response-LCR
HSPDSCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR
                                                TimeSlotLCR.
   midambleShiftLCR
                                                MidambleShiftLCR,
    iE-Extensions
                                                ProtocolExtensionContainer { { HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    OPTIONAL,
HSPDSCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
HSSCCH-FDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-FDD-Specific-InfoItem-Response
HSSCCH-FDD-Specific-InfoItem-Response ::= SEQUENCE {
    code-Number
                                                     INTEGER (0..127),
                                                    ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
    iE-Extensions
   OPTIONAL,
    . . .
HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response
HSSCCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot
                                                    TimeSlot,
   midambleShiftAndBurstType
                                                    MidambleShiftAndBurstType,
    tDD-ChannelisationCode
                                                    TDD-ChannelisationCode,
   hSSICH-Info
                                                    HSSICH-Info,
    iE-Extensions
                                                    ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (0..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response-LCR
HSSCCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR
                                                TimeSlotLCR
    midambleShiftLCR
                                                MidambleShiftLCR,
    first-TDD-ChannelisationCode
                                                TDD-ChannelisationCode,
    second-TDD-ChannelisationCode
                                            TDD-ChannelisationCode,
   hSSICH-InfoLCR
                                                HSSICH-InfoLCR,
                                                ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    iE-Extensions
   OPTIONAL,
    . . .
HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSICH-Info ::= SEQUENCE {
```

```
hsSICH-ID
                                                     HS-SICH-ID,
    timeslot
                                                    TimeSlot,
    midambleShiftAndBurstType
                                                     MidambleShiftAndBurstType,
    tDD-ChannelisationCode
                                                     TDD-ChannelisationCode,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }
                                                                                                                  OPTIONAL,
HSSICH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSICH-InfoLCR ::= SEQUENCE {
   hsSICH-ID
                                                     HS-SICH-ID,
    timeslotLCR
                                                    TimeSlotLCR,
    midambleShiftLCR
                                                    MidambleShiftLCR,
    tDD-ChannelisationCode
                                                TDD-ChannelisationCode,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }
                                                                                                                     OPTIONAL,
    . . .
HSSICH-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HS-SICH-Reception-Quality-Value ::= SEQUENCE
                                HS-SICH-failed,
    failed-HS-SICH
    missed-HS-SICH
                                HS-SICH-missed,
    total-HS-SICH
                                HS-SICH-total,
                                ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
    iE-Extensions
HS-SICH-Reception-Quality-Value-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HS-SICH-failed ::= INTEGER (0..20)
HS-SICH-missed ::= INTEGER (0..20)
HS-SICH-total ::= INTEGER (0..20)
HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
-- According to mapping in [23]
HS-SICH-ID ::= INTEGER (0..31)
HSSCCH-CodeChangeIndicator ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
HSSCCH-Code-Change-Grant
                            ::= ENUMERATED {
    changeGranted
```

```
HSDSCH-FDD-Update-Information ::= SEQUENCE {
   hsSCCHCodeChangeIndicator
                                                  HSSCCH-CodeChangeIndicator
                                                                                            OPTIONAL,
    cgiFeedback-CycleK
                                                  COI-Feedback-Cycle
                                                                                            OPTIONAL,
   cgiRepetitionFactor
                                                  COI-RepetitionFactor
                                                                                            OPTIONAL,
   ackNackRepetitionFactor
                                                  AckNack-RepetitionFactor
                                                                                            OPTIONAL,
    cgiPowerOffset
                                                  COI-Power-Offset
                                                                                            OPTIONAL,
   ackPowerOffset
                                                  Ack-Power-Offset
                                                                                            OPTIONAL,
   nackPowerOffset
                                                  Nack-Power-Offset
                                                                                            OPTIONAL,
   iE-Extensions
                                                  ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }
                                                                                                                          OPTIONAL,
    . . .
HSDSCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Update-Information ::= SEQUENCE {
   hsSCCHCodeChangeIndicator
                                                  HSSCCH-CodeChangeIndicator
                                                                                            OPTIONAL,
    tDDAckNackPowerOffset
                                                  TDD-AckNack-Power-Offset
                                                                                            OPTIONAL,
   iE-Extensions
                                                  ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }
                                                                                                                          OPTIONAL,
HSDSCH-TDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- I
IB-SchedulingInformation::= SEQUENCE
   iB-SG-Rep
                                  IB-SG-REP,
   iB-segmentInformationList
                                  IB-SegmentInformationList,
                                  ProtocolExtensionContainer { { IB-SchedulingInformation-ExtIEs } } OPTIONAL,
   iE-Extensions
IB-SchedulingInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SegmentInformationList ::= SEQUENCE (SIZE(1..maxIBSEG)) OF IB-SegmentInformationItem
IB-SegmentInformationItem ::= SEQUENCE {
   iB-SG-POS
   iE-Extensions
                                  IB-SegmentInformationItem-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
IMSI
           ::= OCTET STRING (SIZE(3..8))
InformationAvailable::= SEOUENCE {
    requestedDataValue
                           RequestedDataValue,
    iE-Extensions
                            ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }
                                                                                                OPTIONAL,
InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeID ::= INTEGER (0..1048575)
InformationNotAvailable ::= NULL
InformationReportCharacteristics ::= CHOICE {
    onDemand
                           NULL,
    periodic
                           PeriodicInformation,
    onModification
                           OnModificationInformation,
InformationReportPeriodicity ::= CHOICE {
                    INTEGER (1..60,...),
-- Unit min, Step 1min
   hour
                   INTEGER (1..24,...),
-- Unit hour, Step 1hour
InformationThreshold ::= CHOICE {
    dGPSThreshold
                       DGPSThreshold,
InformationType ::= SEQUENCE {
    informationTypeItem
                           ENUMERATED {
       gA-AccessPointPositionwithAltitude,
        gA-AccessPointPosition,
       iPDLParameters,
       gPSInformation,
       dGPSCorrections,
       qPS-RX-POS,
       sFNSFN-GA-AccessPointPosition,
       cell-Capacity-Class
```

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```
gPSInformation
                                GPSInformation
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { InformationType-ExtIEs} }
                                                                                                 OPTIONAL,
-- The GPS Information IE shall be present if the Information Exchange Type IE indicates "GPS Information"
-- For information exchange on the Iur-g interface, only the Cell Capacity Class is used.
InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InnerLoopDLPCStatus
                        ::= ENUMERATED {active, inactive}
IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters
                                IPDL-FDD-Parameters,
   iPDL-TDD-Parameters
                                IPDL-TDD-Parameters,
                                                        --3.84Mcps TDD only
    extension-IPDLParameters
                                Extension-IPDLParameters
                           ::= ProtocolIE-Single-Container {{ Extension-IPDLParametersIE }}
Extension-IPDLParameters
Extension-IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR CRITICALITY reject TYPE IPDL-TDD-ParametersLCR PRESENCE mandatory },
    . . .
IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD
                                IPSpacingFDD,
    iPLength
                                IPLength,
   iPOffset
                                IPOffset,
                                Seed,
   burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }
    iE-Extensions
                                                                                                   OPTIONAL,
IPDL-FDD-Parameters-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-Parameters ::= SEQUENCE {
   iPSpacingTDD
                                IPSpacingTDD,
   iPStart
                                IPStart,
   iPSlot
                                IPSlot,
   iP-P-CCPCH
                                IP-P-CCPCH,
   burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }
                                                                                                   OPTIONAL,
    . . .
```

-- The  ${\it Burst Mode Parameters}$  IE shall be included if the Idle Periods are arranged in Burst Mode.

```
IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-ParametersLCR ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
    iPStart
                                IPStart,
    iPSub
                                IPSub,
    burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} } OPTIONAL,
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPLength ::= ENUMERATED {
   ipl5,
    ipl10,
IPOffset ::= INTEGER (0..9)
IP-P-CCPCH ::= ENUMERATED {
    switchOff-1-Frame,
    switchOff-2-Frames
IPSlot ::= INTEGER (0..14)
IPSpacingFDD ::= ENUMERATED {
    ipsF5,
    ipsF7,
    ipsF10,
    ipsF15,
    ipsF20,
    ipsF30,
    ipsF40,
    ipsF50,
IPSpacingTDD ::= ENUMERATED {
    ipsT30,
    ipsT40,
    ipsT50,
    ipsT70,
    ipsT100,
```

```
IPStart ::= INTEGER (0..4095)
IPSub ::= ENUMERATED {
    first,
    second,
   both
LAC
                    ::= OCTET STRING (SIZE (2)) -- (EXCEPT ('0000'H|'FFFE'H))
LengthOfTFCI2 ::= INTEGER(1..10)
LimitedPowerIncrease ::= ENUMERATED {
    not-used
L3-Information
                           ::= BIT STRING
Load-Value-IncrDecrThres ::= INTEGER(0..100)
Load-Value ::= INTEGER(0..100)
LoadValue ::= SEOUENCE {
       uplinkLoadValue
                            INTEGER(0..100),
       downlinkLoadValue
                           INTEGER(0..100)
-- M
MaxNrOfUL-DPCHs
                         ::= INTEGER (1..6)
MAC-c-sh-SDU-Length
                           ::= INTEGER (1..5000)
MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length
MACdPDU-Size ::= INTEGER (1..5000,...)
MACdPDU-Size-IndexList ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem
MACdPDU-Size-IndexItem ::= SEQUENCE {
                                        SID,
    mACdPDU-Size
                                       MACdPDU-Size,
    iE-Extensions
                                       ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs } }
                                                                                                                OPTIONAL,
MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
MACdPDU-Size-IndexList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify
MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
                                     MACdPDU-Size,
   mACdPDU-Size
   iE-Extensions
                                     OPTIONAL,
MACdPDU-Size-IndexItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MAChsGuaranteedBitRate ::= INTEGER (0..16777215,...)
MAChsReorderingBufferSize-for-RLC-UM ::= INTEGER (0..300,...)
-- Unit kBytes
MAC-hsWindowSize
                      ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}
MaximumAllowedULTxPower
                          ::= INTEGER (-50..33)
MaxNrDLPhysicalchannels
                         ::= INTEGER (1..224)
-- 1.28Mcps TDD 97 - 224 are unused
MaxNrDLPhysicalchannelsTS ::= INTEGER (1..16)
MaxNrTimeslots
                          ::= INTEGER (1..14)
-- 1.28Mcps values 7-14 are unused
MaxNrULPhysicalchannels
                         ::= INTEGER (1..2)
MaxTFCIvalue
                          ::= INTEGER (1..1023)
MeasurementFilterCoefficient ::= ENUMERATED{k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement
MeasurementID
                          ::= INTEGER (0..1048575)
Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5
MinimumSpreadingFactor
                         ::= INTEGER (1..16)
Multi-code-info
                          ::= INTEGER (1..16)
MultipleURAsIndicator ::= ENUMERATED {
   multiple-URAs-exist,
   single-URA-exists
MaxAdjustmentStep
                          ::= INTEGER(1..10)
```

```
-- Unit Slot
Measurement.ChangeTime
                     ::= INTEGER (1..6000....)
-- The MeasurementChangeTime gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms
MeasurementHysteresisTime
                         ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms. Step is 10ms
Measurement.IncreaseDecreaseThreshold
                                  ::= CHOICE {
   sir
                            SIR-Value-IncrDecrThres,
   sir-error
                            SIR-Error-Value-IncrDecrThres,
   transmitted-code-power
                            Transmitted-Code-Power-Value-IncrDecrThres,
                            RSCP-Value-IncrDecrThres,
   round-trip-time
                            Round-Trip-Time-IncrDecrThres,
   extension-MeasurementIncreaseDecreaseThreshold
                                            Extension-MeasurementIncreaseDecreaseThreshold
Extension-MeasurementIncreaseDecreaseThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}
Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
                              CRITICALITY reject TYPE Load-Value-IncrDecrThres PRESENCE mandatory }
    ID id-Load-Value-IncrDecrThres
    mandatory } |
   PRESENCE mandatory } |
    ID id-RT-Load-Value-IncrDecrThres CRITICALITY reject TYPE RT-Load-Value-IncrDecrThres
                                                                           PRESENCE mandatory } |
    MeasurementThreshold
                         ::= CHOICE {
   sir
                            SIR-Value,
                            SIR-Error-Value,
   sir-error
   transmitted-code-power
                            Transmitted-Code-Power-Value.
                            RSCP-Value,
   rx-timing-deviation
                            Rx-Timing-Deviation-Value,
   round-trip-time
                            Round-Trip-Time-Value,
   extension-MeasurementThreshold Extension-MeasurementThreshold
Extension-MeasurementThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementThresholdIE }}
Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::= {
    ID id-TUTRANGPSMeasurementThresholdInformation
                                           CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation
                                                                                                  PRESENCE mandatory }
    ID id-SFNSFNMeasurementThresholdInformation
                                            CRITICALITY reject TYPE SFNSFNMeasurementThresholdInformation
                                                                                                  PRESENCE mandatory }
```

PRESENCE mandatory }

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory }

PRESENCE mandatory}

```
ID id-Load-Value
                                                        CRITICALITY reject TYPE Load-Value
      ID id-Transmitted-Carrier-Power-Value
                                                        CRITICALITY reject TYPE Transmitted-Carrier-Power-Value
      ID id-Received-Total-Wideband-Power-Value
                                                         CRITICALITY reject TYPE Received-Total-Wideband-Power-Value
      ID id-UL-Timeslot-ISCP-Value
                                                        CRITICALITY reject TYPE UL-Timeslot-ISCP-Value
      ID id-RT-Load-Value
                                                         CRITICALITY reject TYPE RT-Load-Value
      ID id-NRT-Load-Information-Value
                                                        CRITICALITY reject TYPE NRT-Load-Information-Value
      ID id-Rx-Timing-Deviation-Value-LCR
                                                        CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR
      ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory
MidambleConfigurationBurstType1And3 ::=
                                            ENUMERATED {v4, v8, v16}
MidambleConfigurationBurstType2 ::=
                                        ENUMERATED {v3, v6}
MidambleConfigurationLCR ::=
                                ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}
MidambleShiftAndBurstType ::=
                                    CHOICE {
                                        SEOUENCE
    type1
        midambleConfigurationBurstType1And3
                                                MidambleConfigurationBurstTypelAnd3,
        midambleAllocationMode
                                            CHOICE
            defaultMidamble
                                                NULL,
                                                NULL,
            commonMidamble
                                                MidambleShiftLong,
           ueSpecificMidamble
        . . .
    type2
                                        SEOUENCE
        midambleConfigurationBurstType2
                                            MidambleConfigurationBurstType2,
        midambleAllocationMode
                                            CHOICE +
            defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
            ueSpecificMidamble
                                                MidambleShiftShort,
    type3
                                        SEOUENCE
        midambleConfigurationBurstTypelAnd3 MidambleConfigurationBurstTypelAnd3,
        midambleAllocationMode
            defaultMidamble
                                                NULL,
                                                MidambleShiftLong,
            ueSpecificMidamble
MidambleShiftLong ::=
                                    INTEGER (0..15)
MidambleShiftShort ::=
                                    INTEGER (0..5)
MidambleShiftLCR ::= SEQUENCE {
```

```
midambleAllocationMode
                                MidambleAllocationMode,
    midambleShift.
                                MidambleShiftLong
                                                         OPTIONAL,
        -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
                                MidambleConfigurationLCR,
    midambleConfigurationLCR
    iE-Extensions
                                ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }
                                                                                                  OPTIONAL,
    . . .
MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
    . . .
MidambleShiftLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MinUL-ChannelisationCodeLength
                                    ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256
ModifyPriorityQueue ::= CHOICE {
    addPriorityQueue
                                PriorityQueue-InfoItem-to-Add,
    modifyPriorityQueue
                                PriorityQueue-InfoItem-to-Modify,
    deletePriorityQueue
                                PriorityQueue-Id,
Modulation ::= ENUMERATED {
    aPSK,
    eightPSK,
    . . .
MultiplexingPosition ::= ENUMERATED {
    fixed.
    flexible
MAChs-ResetIndicator ::= ENUMERATED{
    mAChs-NotReset
-- N
Nack-Power-Offset ::= INTEGER (0..8,...)
```

```
-- According to mapping in ref. [21] subclause 4.2.1
NCC ::= BIT STRING (SIZE (3))
Neighbouring-UMTS-CellInformation ::= SEQUENCE (SIZE (1..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-UMTS-
CellInformationItemIE }}
Neighbouring-UMTS-CellInformationItemIE RNSAP-PROTOCOL-IES ::= {
    Neighbouring-UMTS-CellInformationItem PRESENCE mandatory }
Neighbouring-UMTS-CellInformationItem ::= SEQUENCE
    rNC-ID
    cN-PS-DomainIdentifier
                                           CN-PS-DomainIdentifier
                                                                       OPTIONAL.
                                           CN-CS-DomainIdentifier
                                                                       OPTIONAL.
    cN-CS-DomainIdentifier
    neighbouring-FDD-CellInformation
                                           Neighbouring-FDD-CellInformation
                                                                               OPTIONAL,
    neighbouring-TDD-CellInformation
                                           Neighbouring-TDD-CellInformation
                                                                              OPTIONAL,
    iE-Extensions
                                           ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
    . . .
Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation
                                                           CRITICALITY ignore
                                                                                   EXTENSION
                                                                                              Neighbouring-LCR-TDD-CellInformation
                                                                                                                                         PRESENCE
optional }.
Neighbouring-FDD-CellInformation ::= SEOUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem
Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
    c-ID
                                       C-ID,
    uARFCNforNu
                                       UARFCN,
    uARFCNforNd
                                       UARFCN,
    frameOffset
                                       FrameOffset
                                                           OPTIONAL,
    primaryScramblingCode
                                       PrimaryScramblingCode,
    primaryCPICH-Power
                                       PrimaryCPICH-Power
                                                               OPTIONAL.
    cellIndividualOffset
                                       CellIndividualOffset
                                                               OPTIONAL,
    txDiversityIndicator
                                       TxDiversityIndicator,
    sTTD-SupportIndicator
                                       STTD-SupportIndicator OPTIONAL,
    closedLoopModel-SupportIndicator
                                       ClosedLoopModel-SupportIndicator
                                                                           OPTIONAL,
    closedLoopMode2-SupportIndicator
                                       ClosedLoopMode2-SupportIndicator
                                                                           OPTIONAL,
                                       ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-RestrictionStateIndicator
                                                   CRITICALITY ignore
                                                                               EXTENSION RestrictionStateIndicator
                                                                                                                     PRESENCE optional } |
     ID id-DPC-Mode-Change-SupportIndicator
                                               CRITICALITY ignore
                                                                       EXTENSION
                                                                                  DPC-Mode-Change-SupportIndicator
                                                                                                                        PRESENCE optional }
     ID id-CoverageIndicator
                                           CRITICALITY ignore
                                                                       EXTENSION CoverageIndicator
                                                                                                               PRESENCE optional }
     ID id-AntennaColocationIndicator
                                           CRITICALITY ignore
                                                                       EXTENSION AntennaColocationIndicator
                                                                                                               PRESENCE optional }
                                                                       EXTENSION HCS-Prio
     ID id-HCS-Prio
                                           CRITICALITY ignore
                                                                                                               PRESENCE optional } |
     ID id-CellCapabilityContainer-FDD
                                               CRITICALITY ignore
                                                                       EXTENSION
                                                                                  CellCapabilityContainer-FDD
                                                                                                                       PRESENCE optional }
     ID id-SNA-Information
                                                                       EXTENSION SNA-Information
                                                                                                      PRESENCE optional },
                                           CRITICALITY ignore
    . . .
```

```
NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
                                        UARFCN.
    primaryScramblingCode
                                        PrimaryScramblingCode,
                                        ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}
Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-GSM-CellInformation
                                              CRITICALITY ignore TYPE
                                                                            Neighbouring-GSM-CellInformationIEs PRESENCE mandatory }
Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem
Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cellIndividualOffset
                                        CellIndividualOffset
                                                                OPTIONAL.
    bSIC
                                        BSIC,
    band-Indicator
                                        Band-Indicator,
    bcch-arfcn
                                        BCCH-ARFCN,
    iE-Extensions
                                        ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                                                                    PRESENCE optional
                                                                        EXTENSION CoverageIndicator
     ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION AntennaColocationIndicator
                                                                                                                    PRESENCE optional
     ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                        EXTENSION HCS-Prio
                                                                                                                    PRESENCE optional
     ID id-SNA-Information
                                            CRITICALITY ignore
                                                                        EXTENSION SNA-Information
                                                                                                                    PRESENCE optional
     ID id-GERAN-Cell-Capability
                                            CRITICALITY ignore
                                                                        EXTENSION GERAN-Cell-Capability
                                                                                                                    PRESENCE optional
     ID id-GERAN-Classmark
                                            CRITICALITY ignore
                                                                        EXTENSION GERAN-Classmark
                                                                                                                    PRESENCE optional
     ID id-ExtendedGSMCellIndividualOffset CRITICALITY ignore
                                                                        EXTENSION ExtendedGSMCellIndividualOffset PRESENCE optional },
Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem
Neighbouring-TDD-CellInformationItem ::= SEQUENCE {
                                    C-ID,
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                        OPTIONAL,
    cellParameterID
                                    CellParameterID,
    syncCase
                                    SyncCase,
    timeSlot
                                    TimeSlot
                                                        OPTIONAL
    -- This IE shall be present if Sync Case = Case1 -- ,
    sCH-TimeSlot
                                    SCH-TimeSlot
                                                            OPTIONAL
```

```
-- This IE shall be present if Sync Case = Case2 -- ,
    sCTD-Indicator
                           SCTD-Indicator.
    cellIndividualOffset
                                    CellIndividualOffset
                                                            OPTIONAL.
    dPCHConstantValue
                                    DPCHConstantValue OPTIONAL,
    pCCPCH-Power
                                    PCCPCH-Power
                                                            OPTIONAL.
                                    ProtocolExtensionContainer { { Neighbouring-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-RestrictionStateIndicator
                                                    CRITICALITY ignore
                                                                                EXTENSION RestrictionStateIndicator PRESENCE optional }
     ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION CoverageIndicator
                                                                                                                 PRESENCE optional } |
     ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION AntennaColocationIndicator
                                                                                                                 PRESENCE optional }
     ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                        EXTENSION HCS-Prio
                                                                                                                 PRESENCE optional }
     ID id-CellCapabilityContainer-TDD
                                                    CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
                                                                                                                       PRESENCE optional } |
     ID id-SNA-Information
                                                    CRITICALITY ignore EXTENSION SNA-Information
                                                                                                                 PRESENCE optional },
    . . .
NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    11C-TD
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlot
                                        TimeSlot
                                                                    OPTIONAL,
   midambleShiftAndBurstType
                                        MidambleShiftAndBurstType OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    . . .
NeighbouringTDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlotLCR
                                        TimeSlotLCR
                                                                    OPTIONAL,
    midambleShiftLCR
                                        MidambleShiftLCR
                                                                    OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-LCR-TDD-CellInformation ::= SEQUENCE (SIZE (1.. maxNrOfLCRTDDNeighboursPerRNC,...)) OF Neighbouring-LCR-TDD-CellInformationItem
Neighbouring-LCR-TDD-CellInformationItem ::= SEQUENCE {
    c-ID
                                    C-ID,
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                        OPTIONAL,
```

```
cellParameterID
                                    CellParameterID,
    sCTD-Indicator
                            SCTD-Indicator.
    cellIndividualOffset
                                    CellIndividualOffset
                                                            OPTIONAL.
                                    DPCHConstantValue OPTIONAL,
    dPCHConstantValue
    pCCPCH-Power
                                    PCCPCH-Power
                                                            OPTIONAL.
    restrictionStateIndicator
                                                                    OPTIONAL,
                                    RestrictionStateIndicator
                                    ProtocolExtensionContainer { { Neighbouring-LCR-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-LCR-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                CoverageIndicator
                                                                                                                    PRESENCE optional }
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                AntennaColocationIndicator
                                                                                                                    PRESENCE optional }
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                HCS-Prio
                                                                                                                    PRESENCE optional |
                                                                                                                    PRESENCE optional }|
      ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore
                                                                                CellCapabilityContainer-TDD-LCR
                                                                    EXTENSION
                                                                                SNA-Information
     ID id-SNA-Information
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                                                    PRESENCE optional },
NrOfDLchannelisationcodes ::= INTEGER (1..8)
NrOfTransportBlocks
                            ::= INTEGER (0..512)
NRT-Load-Information-Value-IncrDecrThres ::= INTEGER(0..3)
NRT-Load-Information-Value ::= INTEGER(0..3)
NRTLoadInformationValue ::= SEQUENCE {
        uplinkNRTLoadInformationValue
                                            INTEGER(0..3),
        downlinkNRTLoadInformationValue
                                            INTEGER(0..3)
-- O
OnModification ::= SEOUENCE {
    measurementThreshold
                           MeasurementThreshold,
    iE-Extensions
                            ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
OnModification-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
OnModificationInformation ::= SEQUENCE {
    informationThreshold
                          InformationThreshold
                                                    OPTIONAL,
                            ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
    iE-Extensions
OnModificationInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- P
PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
    terminating-background-call,
    terminating-low-priority-signalling,
    terminating-high-priority-signalling,
    terminating-cause-unknown
-- See in [16]
PagingRecordType ::= ENUMERATED {
    imsi-qsm-map,
    tmsi-qsm-map,
    p-tmsi-qsm-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
    SEOUENCE {
       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
    SEOUENCE {
       tfci-Field2
                                    TFCS-MaxTFCI-field2-Value,
       spreadingFactor
                                    SpreadingFactor,
       multi-CodeInfo
                                    Multi-code-info,
       codeNumber
                                    CodeNumber,
       iE-Extensions
                                    ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs} }
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
    . . .
Phase-Reference-Update-Indicator ::= ENUMERATED {
    phase-reference-needs-to-be-changed
PLMN-Identity ::= OCTET STRING (SIZE(3))
PowerAdjustmentType ::= ENUMERATED {
   none,
   common,
```

```
individual
PowerOffset
                        ::= INTEGER (0..24)
PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters
PRCDeviation ::= ENUMERATED {
    prcd1,
    prcd2,
    prcd5,
    prcd10,
Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PrimaryCPICH-Power
                          ::= INTEGER (-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm
PrimaryCPICH-EcNo
                           ::= INTEGER (-30..30)
Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
  primary-CPICH-may-be-used,
  primary-CPICH-shall-not-be-used
PrimaryCCPCH-RSCP
                           ::= INTEGER (0..91)
-- Mapping of non-negative values according to [24]
PrimaryCCPCH-RSCP-Delta
                           ::= INTEGER (-5..-1,...)
-- Mapping of negative values according to [24]
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)
PriorityOueue-InfoList ::= SEOUENCE (SIZE (1..maxNrOfPrioOueues)) OF PriorityOueue-InfoItem
PriorityOueue-InfoItem ::= SEOUENCE {
    priorityOueue-Id
                                        PriorityOueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    discardTimer
                                        DiscardTimer
                                                                     OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                     OPTIONAL,
    mACdPDU-Size-Index
                                        MACdPDU-Size-IndexList,
    rLC-Mode
                                        RLC-Mode,
    iE-Extensions
                                        ProtocolExtensionContainer { { PriorityOueue-InfoItem-ExtIEs } }
                                                                                                                  OPTIONAL,
PriorityOueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF ModifyPriorityQueue
PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
    priorityOueue-Id
                                        PriorityOueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    t1
                                        T1,
    discardTimer
                                        DiscardTimer
                                                                                 OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                 OPTIONAL,
    mACdPDU-Size-Index
                                        MACdPDU-Size-IndexList,
   rLC-Mode
                                        RLC-Mode,
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Add-ExtIEs } }
    iE-Extensions
                                                                                                                         OPTIONAL,
PriorityOueue-InfoItem-to-Add-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
    priorityQueue-Id
                                        PriorityQueue-Id,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                                 OPTIONAL,
    t1
                                                                                 OPTIONAL,
    discardTimer
                                        DiscardTimer
                                                                                 OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize
                                                                                 OPTIONAL,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                 OPTIONAL,
                                        MACdPDU-Size-IndexList-to-Modify
    mACdPDU-Size-Index-to-Modify
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } } 
    iE-Extensions
                                                                                                                           OPTIONAL,
    . . .
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PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoList-to-Modify-Unsynchronised ::= SEQUENCE (SIZE (0..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-to-Modify-Unsynchronised
PriorityQueue-InfoItem-to-Modify-Unsynchronised ::= SEQUENCE {
                                       PriorityQueue-Id,
    priorityQueueId
    schedulingPriorityIndicator
                                       SchedulingPriorityIndicator
                                                                                                                   OPTIONAL,
                                       DiscardTimer
    discardTimer
                                                                                                                   OPTIONAL,
    mAChsGuaranteedBitRate
                                       MAChsGuaranteedBitRate
                                                                                                                   OPTIONAL,
                                       ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs} }
   iE-Extensions
                                                                                                                                     OPTIONAL,
    . . .
PriorityOueue-InfoItem-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PropagationDelay
                     ::= INTEGER (0..255)
PunctureLimit
                          ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- O
OE-Selector ::= ENUMERATED {
    selected,
    non-selected
Qth-Parameter ::= INTEGER (-20..0)
-- Unit dB, Step 1dB
-- R
RAC
                   ::= OCTET STRING (SIZE(1))
RANAP-RelocationInformation
                             ::= BIT STRING
Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s
RateMatchingAttribute
                              ::= INTEGER (1..maxRateMatching)
RB-Identity
                               ::= INTEGER (0..31)
RB-Info ::= SEQUENCE (SIZE(1..maxNoOfRB)) OF RB-Identity
Received-Total-Wideband-Power-Value ::= Received-total-wide-band-power
Received-Total-Wideband-Power-Value-IncrDecrThres ::= INTEGER(0..620)
-- Unit dB Step 0.1dB
-- e.g. value 100 means 10dB
```

```
RefTFCNumber ::= INTEGER (0..15)
RepetitionLength
                            ::= INTEGER (1..63)
RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64
RepetitionNumber0 ::= INTEGER (0..255)
RepetitionNumber1 ::= INTEGER (1..256)
ReportCharacteristics ::= CHOICE {
    onDemand
                        NULL,
    periodic
                        Periodic,
    eventA
                        EventA,
    eventB
                        EventB,
    eventC
                        EventC,
                        EventD,
    eventD
                        EventE,
    eventE
    eventF
                        EventF,
    extension-ReportCharacteristics
                                        Extension-ReportCharacteristics
Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}
Extension-ReportCharacteristicsIE RNSAP-PROTOCOL-IES ::= {
    { ID id-OnModification CRITICALITY reject TYPE OnModification
                                                                         PRESENCE mandatory }
ReportPeriodicity ::= CHOICE {
                            INTEGER (1..6000,...),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
                    INTEGER (1..60,...),
    min
-- Unit min, Step 1min
RequestedDataValue ::= SEQUENCE {
    qA-AccessPointPositionwithAltitude
                                                GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
    iPDLParameters
                                                IPDLParameters
                                                                                             OPTIONAL,
    dGPSCorrections
                                                DGPSCorrections
                                                                                             OPTIONAL,
    gPS-NavigationModel-and-TimeRecovery
                                                GPS-NavigationModel-and-TimeRecovery
                                                                                             OPTIONAL,
    gPS-Ionospheric-Model
                                                GPS-Ionospheric-Model
                                                                                             OPTIONAL,
```

```
OPTIONAL,
   gPS-UTC-Model
                                            GPS-UTC-Model
   qPS-Almanac
                                            GPS-Almanac
                                                                                     OPTIONAL,
   qPS-RealTime-Integrity
                                            GPS-RealTime-Integrity
                                                                                     OPTIONAL.
   qPS-RX-POS
                                            GPS-RX-POS
                                                                                     OPTIONAL,
    sFNSFN-GA-AccessPointPosition
                                            GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
   iE-Extensions
                                            ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }
                                                                                                        OPTIONAL,
RequestedDataValue-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
RequestedDataValueInformation ::= CHOICE {
   informationAvailable
                             InformationAvailable,
   informationNotAvailable
                             InformationNotAvailable
RestrictionStateIndicator ::= ENUMERATED {
   cellNotResevedForOperatorUse,
   cellResevedForOperatorUse,
RL-ID
                      ::= INTEGER (0..31)
RL-Set-ID
                      ::= INTEGER (0..31)
RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item
RL-Specific-DCH-Info-Item ::= SEQUENCE {
   dCH-id
                         DCH-ID,
   bindingID
                         BindingID OPTIONAL,
   -- Shall be ignored if bearer establishment with ALCAP.
   transportLayerAddress TransportLayerAddress
                                                   OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
   iE-Extensions
                         ProtocolExtensionContainer { RL-Specific-DCH-Info-Item-ExtIEs} } OPTIONAL,
RL-Specific-DCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLC-Mode
          ::= ENUMERATED {
   rLC-AM,
   rLC-UM,
RNC-ID
                      ::= INTEGER (0..4095)
Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)
```

```
Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [23]
RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [24]
RSCP-Value-IncrDecrThres ::= INTEGER (0..126)
Received-total-wide-band-power
                                            ::= INTEGER (0..621)
-- According to mapping in [23]
RT-Load-Value-IncrDecrThres ::= INTEGER(0..100)
RT-Load-Value ::= INTEGER(0..100)
RTLoadValue ::= SEOUENCE {
       uplinkRTLoadValue
                                INTEGER(0..100),
        downlinkRTLoadValue
                                INTEGER(0..100)
RxTimingDeviationForTA
                                    ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
-- For 1.28Mcps TDD this IE must be set to 0.
Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]
Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
--According to mapping in [24][1.28Mcps TDD only]
-- S
                    ::= OCTET STRING (SIZE (2))
SAC
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 {
```

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```
fDD-S-CCPCH-Offset
                                            FDD-S-CCPCH-Offset,
    dl-ScramblingCode
                                            DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber.
    dl-TFCS
    secondaryCCPCH-SlotFormat
                                            SecondaryCCPCH-SlotFormat,
    tFCI-Presence
                                            TFCI-Presence OPTIONAL,
    -- This IE shall be present only if the Secondary CCPCH Slot Format IE is equal to any of the values from 8 to 17
    multiplexingPosition
                                            MultiplexingPosition,
    sTTD-Indicator
                                            STTD-Indicator,
                                            FACH-PCH-InformationList,
    fACH-PCH-InformationList
    iB-schedulingInformation
                                            IB-SchedulingInformation,
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Secondary-CCPCH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-Info-TDD::= SEQUENCE {
   dl-TECS
                                            TFCS,
    tFCI-Coding
                                            TFCI-Coding,
    secondary-CCPCH-TDD-InformationList
                                            Secondary-CCPCH-TDD-InformationList,
                                            FACH-InformationList,
    fACH-InformationList
    pCH-InformationList
                                            PCH-InformationList,
    iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
Secondary-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
Secondary-CPICH-Information ::= SEQUENCE {
  dl-ScramblingCode
                                            DL-ScramblingCode,
  fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
  iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
Secondary-CPICH-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information-Change ::= CHOICE {
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,
    t.FCI-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 ::= SEOUENCE (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,
                                    ProtocolExtensionContainer { Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem
Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCodeLCR
                                   TDD-ChannelisationCodeLCR,
    s-CCPCH-TimeSlotFormat-LCR
                                    TDD-DL-DPCH-TimeSlotFormat-LCR,
                                    ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
Seed ::= INTEGER (0..63)
SFN ::= INTEGER (0..4095)
SFNSFN-FDD ::= INTEGER(0..614399)
SFNSFN-TDD ::= INTEGER(0..40961)
GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE
    geographicalCoordinate
                                                GeographicalCoordinate,
   altitudeAndDirection
                                                GA-AltitudeAndDirection OPTIONAL,
                                                ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
   iE-Extensions
GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit
                                        SFNSFNChangeLimit
                                                                            OPTIONAL,
    predictedSFNSFNDeviationLimit
                                        PredictedSFNSFNDeviationLimit
                                                                            OPTIONAL,
```

```
iE-Extensions
                                                                                                            OPTIONAL,
SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNMeasurementValueInformation ::= SEOUENCE {
   successfull Neighbouring Cell SFNSFNObserved Time Difference Measurement Information
                                                                                SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
       SEOUENCE {
          uC-ID
                     UC-ID,
          sFNSFNValue
                                    SFNSFNValue,
          sFNSFNQuality
                                    SFNSFNQuality
                                                                  OPTIONAL,
          sFNSFNDriftRate
                                    SFNSFNDriftRate,
                                    SFNSFNDriftRateOuality
          sFNSFNDriftRateOuality
                                                              OPTIONAL,
          sFNSFNTimeStampInformation SFNSFNTimeStampInformation,
                                    ProtocolExtensionContainer { {
          iE-Extensions
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
                                                                                        OPTIONAL,
   unsuccessfull \verb+NeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation
                                                                                SEOUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
       SEOUENCE {
                     UC-ID,
          uC-ID
          iE-Extensions
                             ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }
              OPTIONAL,
          . . .
      },
                     iE-Extensions
                                                                                                 OPTIONAL,
SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
SFNSFNTimeStampInformation ::= CHOICE {
   sFNSFNTimeStamp-FDD
```

```
SFNSFNTimeStamp-TDD,
    sFNSFNTimeStamp-TDD
SFNSFNTimeStamp-TDD::= SEQUENCE {
    sFN
                        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)
                       ::= INTEGER (0..125)
SIR-Error-Value
SIR-Error-Value-IncrDecrThres
                                       ::= INTEGER (0..124)
                       ::= INTEGER (0..63)
-- According to mapping in [11]/[14]
SIR-Value-IncrDecrThres ::= INTEGER (0..62)
SecondaryCCPCH-SlotFormat
                               ::= INTEGER (0..17,...)
-- refer to [8]
S-FieldLength
                           ::= ENUMERATED {
    v1,
    v2,
SNA-Information ::= SEQUENCE {
   pLMN-Identity PLMN-Identity,
  listOfSNAs
                        ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
  iE-Extensions
SNA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs)) OF SNACode
SNACode ::= INTEGER (0..65535)
SpecialBurstScheduling ::= INTEGER (1..256)
SplitType ::= ENUMERATED {
   hard,
    logical
SpreadingFactor
                       ::= INTEGER (4 | 8 | 16 | 32 | 64 | 128 | 256)
S-RNTI
                        ::= INTEGER (0..1048575)
-- From 0 to 2^20-1
S-RNTI-Group
                        ::= SEQUENCE {
                            S-RNTI,
    sRNTI
    sRNTI-BitMaskIndex
                            ENUMERATED {
       bl,
       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,
    d,
    e,
    f,
    g,
   h
```

```
SSDT-CellID-Length ::= ENUMERATED {
     short,
     medium,
    long
SSDT-Indication ::= ENUMERATED
     sSDT-active-in-the-UE,
     sSDT-not-active-in-the-UE
SSDT-SupportIndicator ::= ENUMERATED
     sSDT-supported,
     sSDT-not-supported
STTD-Indicator ::= ENUMERATED {
     active,
     inactive
STTD-SupportIndicator ::= ENUMERATED {
     sTTD-Supported,
     sTTD-not-Supported
Support-8PSK ::= ENUMERATED {
     v8PSK-Supported
SyncCase ::= INTEGER (1..2,...)
SynchronisationConfiguration ::= SEQUENCE
    n-INSYNC-IND
                                INTEGER (1..256),
    n-OUTSYNC-IND
                                INTEGER (1..256),
     t-RLFAILURE
                               INTEGER (0..255),
-- Unit seconds, Range Os .. 25.5s, Step 0.1s
                                ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
SynchronisationConfiguration-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SYNC-UL-ProcParameters ::= SEQUENCE {
    maxSYNC-UL-transmissions
                                           ENUMERATED {v1, v2, v4, v8, ...},
    powerRampStep
                                          INTEGER (0..3, ...),
-- T
\texttt{T1} ::= \texttt{ENUMERATED} \ \{ \texttt{v10}, \texttt{v20}, \texttt{v30}, \texttt{v40}, \texttt{v50}, \texttt{v60}, \texttt{v70}, \texttt{v80}, \texttt{v90}, \texttt{v100}, \texttt{v120}, \texttt{v140}, \texttt{v160}, \texttt{v200}, \texttt{v300}, \texttt{v400}, \ldots \}
```

```
TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB
TDD-ChannelisationCode
                                 ::= ENUMERATED {
    chCodeldiv1,
    chCode2div1,
    chCode2div2.
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4.
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode
                                     TDD-ChannelisationCode,
    modulation
                                     Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
    . . .
TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem
TDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode
                                         UL-FP-Mode OPTIONAL,
    toAWS
                                         ToAWS
                                                     OPTIONAL,
    toAWE
                                                     OPTIONAL,
                                         ToAWE
    transportBearerRequestIndicator
                                         TransportBearerRequestIndicator,
                                         TDD-DCHs-to-ModifySpecificInformationList,
    dCH-SpecificInformationList
    iE-Extensions
                                         ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
```

```
TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlOos
                                                        ignore
                                                                    EXTENSION TnlOos PRESENCE optional },
                                        CRITICALITY
    . . .
TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem
TDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
   ul-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    dl-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    ul-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority OPTIONAL,
                                    ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                           PRESENCE optional }
     ID id-TrafficClass
                               CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE optional }.
    . . .
TDD-DL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem
TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
                                    ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem
TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR
                                            TDD-DL-DPCH-TimeSlotFormat-LCR,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                          OPTIONAL,
    . . .
TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
    aPSK
                                QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
OPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TDD-DPCHOffset ::= CHOICE {
    initialOffset
                        INTEGER (0..255),
   noinitialOffset
                        INTEGER (0..63)
TDD-PhysicalChannelOffset
                                ::= INTEGER (0..63)
TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED
    step-sizel,
    step-size2,
    step-size3,
TDD-UL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem
TDD-UL-Code-InformationItem ::= SEOUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
                                    ProtocolExtensionContainer { {TDD-UL-Code-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
TDD-UL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationItem
TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR
                                            TDD-UL-DPCH-TimeSlotFormat-LCR,
   iE-Extensions
                                            ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                          OPTIONAL,
```

```
TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                               QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    qPSK
    eightPSK
                                EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
QPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)
EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
TFCI-PC-SupportIndicator ::= ENUMERATED {
    tFCI-PC-model-supported,
    tFCI-PC-mode2-supported
TFCI-Presence ::= ENUMERATED {
    present,
    not-present
TFCI-SignallingMode ::= ENUMERATED {
    normal,
    split
                    ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence
TGPRC
                    ::= INTEGER (0..511)
-- 0 = infinity
TGPSID
                    ::= INTEGER (1.. maxTGPS)
TGSN
                  ::= INTEGER (0..14)
TimeSlot
                       ::= INTEGER (0..14)
TimeSlotLCR ::= INTEGER (0..6)
TimingAdvanceApplied ::= ENUMERATED {
   yes,
```

```
no
TnlOos ::= CHOICE {
    dsField
                                DsField.
    genericTrafficCategory
                                GenericTrafficCategory,
ToAWE
                        ::= INTEGER (0..2559)
ToAWS
                        ::= INTEGER (0..1279)
TrafficClass ::= ENUMERATED {
    conversational,
    streaming,
    interactive,
    background,
    . . .
Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
       tGPSID
                        TGPSID,
        tGSN
                        TGSN,
        t.GL1
                        GapLength,
        tGL2
                        GapLength
                                    OPTIONAL,
        t.GD
                        TGD,
        tGPL1
                        GapDuration,
       tGPL2
                        GapDuration OPTIONAL,
       uL-DL-mode
                        UL-DL-mode,
        downlink-Compressed-Mode-Method
                                            Downlink-Compressed-Mode-Method
                                                                                OPTIONAL,
            -- This IE shall be present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
       uplink-Compressed-Mode-Method
                                            Uplink-Compressed-Mode-Method
            -- This IE shall be present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
       dL-FrameType
                            DL-FrameType,
       delta-SIR1
                        DeltaSIR,
        delta-SIR-after1 DeltaSIR,
        delta-SIR2
                       DeltaSIR
                                    OPTIONAL,
        delta-SIR-after2
                           DeltaSIR
                                        OPTIONAL,
                                ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
       iE-Extensions
Transmission-Gap-Pattern-Sequence-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Transmission-Gap-Pattern-Sequence-ScramblingCode-Information
   code-change,
  nocode-change
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
```

```
SEQUENCE {
       tGPSID
                        TGPSID,
        t.GPRC
                        TGPRC.
        t.GCFN
                        CFN,
        iE-Extensions
                            ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalDynamic ::= ENUMERATED {
   msec-10.
   msec-20,
   msec-40,
   msec-80,
TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
   msec-10,
   msec-20,
   msec-40,
   msec-80,
    dynamic,
    . . .
TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
Transmitted-Carrier-Power-Value-IncrDecrThres ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
TUTRANGPS ::= SEQUENCE {
   ms-part
                INTEGER (0..16383),
    ls-part
                INTEGER (0..4294967295)
TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s
TUTRANGPSDriftRateOuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s
```

```
TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit
                                            TUTRANGPSChangeLimit
                                                                                     OPTIONAL,
    predictedTUTRANGPSDeviationLimit
                                            PredictedTUTRANGPSDeviationLimit
                                                                                     OPTIONAL,
                                    ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }
    iE-Extensions
                                                                                                                           OPTIONAL,
    . . .
TUTRANGPSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
        tUTRANGPS
                                        TUTRANGPS,
       tUTRANGPSQuality
                                        TUTRANGPSQuality
                                                                         OPTIONAL,
       tUTRANGPSDriftRate
                                        TUTRANGPSDriftRate,
        tUTRANGPSDriftRateOuality
                                        TUTRANGPSDriftRateOuality
                                                                         OPTIONAL,
                                        ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs} }
       iEe-Extensions
                                                                                                                              OPTIONAL,
        . . .
TUTRANGPSMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
TransportBearerID
                        ::= INTEGER (0..4095)
TransportBearerRequestIndicator
                                    ::= ENUMERATED {
   bearer-requested,
    bearer-not-requested,
    . . .
TransportBlockSize
                            ::= INTEGER (0..5000)
-- Unit is bits
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors
                           SEQUENCE {
       betaC
                                BetaCD,
       betaD
                                BetaCD,
       refTFCNumber
                                RefTFCNumber
                                                OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs} } OPTIONAL,
```

```
refTFCNumber
                            RefTFCNumber,
SignalledGainFactors-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS ::= SEOUENCE {
    tFCSvalues
                        CHOICE {
       no-Split-in-TFCI
                                    TFCS-TFCSList,
        split-in-TFCI
                                    SEQUENCE {
            transportFormatCombination-DCH
                                                TFCS-DCHList,
            signallingMethod
                                                CHOICE {
                tFCI-Range
                                                TFCS-MapingOnDSCHList,
                explicit
                                                    TFCS-DSCHList,
                                                ProtocolExtensionContainer { { Split-in-TFCI-ExtIEs} } OPTIONAL,
            iE-Extensions
        },
                       ProtocolExtensionContainer { { TFCS-ExtIEs} }
    iE-Extensions
                                                                            OPTIONAL,
Split-in-TFCI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
       cTFC
                           TFCS-CTFC,
                        TransportFormatCombination-Beta
                                                            OPTIONAL,
       -- The IE shall be present if the TFCS concerns a UL DPCH [FDD - or PRACH channel in FDD]
                            ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs} }
       iE-Extensions
    . . .
TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-CTFC ::= CHOICE {
    ctfc2bit
                                        INTEGER (0..3),
    ctfc4bit
                                        INTEGER (0..15),
    ctfc6bit
                                        INTEGER (0..63),
    ctfc8bit
                                        INTEGER (0..255),
```

```
ctfc12bit
                                        INTEGER (0..4095),
    ctfc16bit
                                        INTEGER (0..65535),
    ct.fcmaxbit
                                        INTEGER (0..maxCTFC)
TFCS-DCHList ::= SEQUENCE (SIZE (1..maxTFCI1Combs)) OF
    SEOUENCE {
       cTFC
                           TFCS-CTFC,
                           ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs} }
       iE-Extensions
                                                                                        OPTIONAL,
TFCS-DCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MapingOnDSCHList ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
    SEOUENCE {
       maxTFCI-field2-Value
                                   TFCS-MaxTFCI-field2-Value,
       cTFC-DSCH
                               TFCS-CTFC,
       iE-Extensions
                                    ProtocolExtensionContainer { { TFCS-MapingOnDSCHList-ExtIEs} }
                                                                                                       OPTIONAL,
TFCS-MapingOnDSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxTFCI2Combs-1)
TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEQUENCE {
       cTFC-DSCH
                                TFCS-CTFC,
                                    ProtocolExtensionContainer { { TFCS-DSCHList-ExtIEs} }
       iE-Extensions
                                                                                                OPTIONAL,
TFCS-DSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet ::= SEQUENCE {
    dynamicParts
                           TransportFormatSet-DynamicPartList,
    semi-staticPart
                           TransportFormatSet-Semi-staticPart,
   iE-Extensions
                           ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEOUENCE {
```

```
nrOfTransportBlocks
                                NrOfTransportBlocks,
        transportBlockSize
                                TransportBlockSize
                                                        OPTIONAL
        -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
                           TransportFormatSet-ModeDP,
        iE-Extensions
                                ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeDP ::= CHOICE {
    t.dd
                       TDD-TransportFormatSet-ModeDP,
    notApplicable
                        NULL,
TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation
                                            TransmissionTimeIntervalInformation
                                                                                     OPTIONAL.
    -- This IE shall be present if the 'Transmission Time Interval' of the 'Semi-static Transport Format Information' is 'dynamic'. Otherwise it is
absent.
                                            ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
    SEOUENCE {
        transmissionTimeInterval
                                    TransmissionTimeIntervalDynamic,
                                ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
       iE-Extensions
TransmissionTimeIntervalInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [11]/[14]
Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)
TransportFormatManagement ::= ENUMERATED {
    cell-based,
    ue-based,
    . . .
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
                            TransmissionTimeIntervalSemiStatic,
    transmissionTime
```

```
channelCoding
                            ChannelCodingType,
    codingRate
                        CodingRate
                                                OPTIONAL
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute
                                RateMatchingAttribute,
    cRC-Size
                      CRC-Size,
    mode
                        TransportFormatSet-ModeSSP,
    iE-Extensions
                            ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeSSP ::= CHOICE {
                    SecondInterleavingMode,
    notApplicable
                           NULL,
TransportLayerAddress
                               ::= BIT STRING (SIZE(1..160, ...))
TrCH-SrcStatisticsDescr
                           ::= ENUMERATED {
    speech.
    rRC,
    unknown,
    . . .
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
TxDiversityIndicator
                      ::= ENUMERATED {
    true,
    false
TypeOfError ::= ENUMERATED {
   not-understood,
   missing,
-- U
UARFCN
                       ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See [7], [43]
```

```
UDRE ::= ENUMERATED {
    lessThan1.
    between1-and-4,
    between4-and-8,
    over8,
UE-Capabilities-Info ::= SEQUENCE {
    hSDSCH-Physical-Layer-Category
                                        INTEGER (1..64,...),
                                        ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }
    iE-Extensions
                                                                                                               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,
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem
UL-TimeslotLCR-InformationItem ::= 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
    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,
                                                INTEGER (-120 .. -58, ...),
    prxUpPCHdes
    syncUL-procParameter
                                                SYNC-UL-ProcParameters,
    mMax
                                                INTEGER (1..32),
    . . .
Uplink-Compressed-Mode-Method ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
```

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```
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 ::= SEOUENCE {
    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,
                                    ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }
    iE-Extensions
                                                                                                                        OPTIONAL,
```

```
UL-Synchronisation-Parameters-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Synchronisation-StepSize ::= INTEGER (1..8)
UL-Synchronisation-Frequency ::= INTEGER (1..8)
                       ::= INTEGER (0..127)
UL-TimeslotISCP
-- According to mapping in [14]
Unidirectional-DCH-Indicator
                               ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
URA-ID
                       ::= INTEGER (0..65535)
URA-Information ::= SEQUENCE {
    uRA-ID
                                        URA-ID,
    multipleURAsIndicator
                                        MultipleURAsIndicator,
    rNCsWithCellsInTheAccessedURA-List RNCsWithCellsInTheAccessedURA-List OPTIONAL,
                                        ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item
RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID
                                    RNC-ID,
                                    ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ID
                       ::= INTEGER (0..255)
USCH-Information ::= SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem
USCH-InformationItem ::= SEQUENCE {
    uSCH-ID
                                        USCH-ID,
    ul-CCTrCH-ID
                                        CCTrCH-ID,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
```

```
rb-Info
                                       RB-Info,
    iE-Extensions
                                       ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                               CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory } |
    { ID id-BindingID
                                           CRITICALITY ignore
                                                                    EXTENSION
                                                                               BindingID PRESENCE
                                                                                                                   optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                                                                                                    optional },
                                           CRITICALITY ignore
                                                                    EXTENSION
                                                                               TransportLayerAddress
                                                                                                          PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
-- V
-- Y
END
```

## 9.3.5 Common Definitions

```
-- Common definitions
__ **********************************
RNSAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-CommonDataTypes (3) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
   ******************
-- Extension constants
__ **********************************
maxPrivateIEs
                                INTEGER ::= 65535
maxProtocolExtensions
                                INTEGER ::= 65535
maxProtocolIEs
                                INTEGER ::= 65535
    *****************
-- Common Data Types
__ *******************
```

```
Criticality
               ::= ENUMERATED { reject, ignore, notify }
Presence
               ::= ENUMERATED { optional, conditional, mandatory }
PrivateIE-ID ::= CHOICE {
   local
                       INTEGER (0.. maxPrivateIEs),
    global
                      OBJECT IDENTIFIER
ProcedureCode
                 ::= INTEGER (0..255)
ProcedureID ::= SEQUENCE {
   procedureCode
                           ProcedureCode,
    ddMode
                       ENUMERATED { tdd, fdd, common, ... }
ProtocolIE-ID
               ::= INTEGER (0..maxProtocolIEs)
TransactionID
                ::= CHOICE {
    shortTransActionId INTEGER (0..127),
   longTransActionId INTEGER (0..32767)
TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }
END
```

## 9.3.6 Constant Definitions

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

```
id-commonTransportChannelResourcesInitialisation
                                                          ProcedureCode ::= 0
id-commonTransportChannelResourcesRelease
                                                          ProcedureCode ::= 1
id-compressedModeCommand
                                                          ProcedureCode ::= 2
id-downlinkPowerControl
                                                          ProcedureCode ::= 3
id-downlinkPowerTimeslotControl
                                                          ProcedureCode ::= 4
                                                          ProcedureCode ::= 5
id-downlinkSignallingTransfer
id-errorIndication
                                                          ProcedureCode ::= 6
id-dedicatedMeasurementFailure
                                                          ProcedureCode ::= 7
id-dedicatedMeasurementInitiation
                                                          ProcedureCode ::= 8
id-dedicatedMeasurementReporting
                                                          ProcedureCode ::= 9
                                                          ProcedureCode ::= 10
id-dedicatedMeasurementTermination
id-paging
                                                          ProcedureCode ::= 11
id-physicalChannelReconfiguration
                                                          ProcedureCode ::= 12
id-privateMessage
                                                          ProcedureCode ::= 13
id-radioLinkAddition
                                                          ProcedureCode ::= 14
                                                          ProcedureCode ::= 34
id-radioLinkCongestion
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
                                                          ProcedureCode ::= 24
id-unSynchronisedRadioLinkReconfiguration
                                                          ProcedureCode ::= 25
id-uplinkSignallingTransfer
id-commonMeasurementFailure
                                                          ProcedureCode ::= 26
id-commonMeasurementInitiation
                                                          ProcedureCode ::= 27
id-commonMeasurementReporting
                                                          ProcedureCode ::= 28
id-commonMeasurementTermination
                                                          ProcedureCode ::= 29
id-informationExchangeFailure
                                                          ProcedureCode ::= 30
                                                          ProcedureCode ::= 31
id-informationExchangeInitiation
                                                          ProcedureCode ::= 32
id-informationReporting
id-informationExchangeTermination
                                                          ProcedureCode ::= 33
id-reset
                                                          ProcedureCode ::= 35
id-radioLinkActivation
                                                          ProcedureCode ::= 36
id-qERANuplinkSignallingTransfer
                                                          ProcedureCode ::= 37
id-radioLinkParameterUpdate
                                                          ProcedureCode ::= 38
__ ********************
-- Lists
__ *******************
maxCodeNumComp-1
                                      INTEGER ::= 255
                                      INTEGER ::= 256
maxRateMatching
maxNoCodeGroups
                                      INTEGER ::= 256
                                      INTEGER ::= 10
maxNoOfDSCHs
maxNoOfDSCHsLCR
                                      INTEGER ::= 10
                                      INTEGER ::= 32
maxNoOfRB
```

```
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
                                        INTEGER ::= 16
maxTBSEG
maxNrOfSCCPCHs
                                        INTEGER ::= 8
maxTFCI1Combs
                                        INTEGER ::= 512
maxTFCI2Combs
                                        INTEGER ::= 1024
                                        INTEGER ::= 1023
maxTFCI2Combs-1
maxTGPS
                                        INTEGER ::= 6
maxNrOfTS
                                        INTEGER ::= 15
maxNrOfLevels
                                        INTEGER ::= 256
                                        INTEGER ::= 9
maxNoOfDSCHs-1
maxNrOfTsLCR
                                        INTEGER ::= 6
maxNoSat
                                        INTEGER ::= 16
                                        INTEGER ::= 8
maxNoGPSTvpes
maxNrOfMeasNCell
                                        INTEGER ::= 96
maxNrOfMeasNCell-1
                                        INTEGER ::= 95
                                                        -- maxNrOfMeasNCell - 1
maxResetContext
                                        INTEGER ::= 250
maxResetContextGroup
                                        INTEGER ::= 32
maxNrOfHAROProc
                                        INTEGER ::= 8
maxNrOfHSSCCHCodes
                                        INTEGER ::= 4
maxNrOfHSSICHs
                                        INTEGER ::= 4
maxNrOfMACdFlows
                                        INTEGER ::= 8
maxNrOfMACdFlows-1
                                        INTEGER ::= 7
                                                        -- maxNrOfMACdFlows - 1
```

```
maxNrOfPDUIndexes
                                       INTEGER ::= 8
maxNrOfPDUIndexes-1
                                       INTEGER ::= 7
                                                       -- maxNrOfPDUIndexes - 1
maxNrOfPrioOueues
                                       INTEGER ::= 8
maxNrOfPrioOueues-1
                                       INTEGER ::= 7
                                                       -- maxNrOfPrioOueues - 1
maxNrOfSNAs
                                        INTEGER ::= 65536
maxNrOfSatAlmanac-maxNoSat
                                       INTEGER ::= 16
-- TES
  *****************
id-AllowedOueuingTime
                                                                            ProtocolIE-ID ::= 4
id-Allowed-Rate-Information
                                                                            ProtocolIE-ID ::= 42
id-AntennaColocationIndicator
                                                                           ProtocolIE-ID ::= 309
id-BindingID
                                                                            ProtocolIE-ID ::= 5
id-C-ID
                                                                            ProtocolIE-ID ::= 6
id-C-RNTI
                                                                            ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value
                                                                            ProtocolIE-ID ::= 303
id-CFN
                                                                            ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier
                                                                            ProtocolTE-TD ::= 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-ReconfRgstTDD
                                                                            ProtocolIE-ID ::= 33
                                                                           ProtocolIE-ID ::= 34
id-DCH-FDD-Information
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-ReconfRgstTDD
                                                                           ProtocolIE-ID ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD
                                                                           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-SetupRgstTDD
                                                                           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-PagingRgst	ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation	ProtocolIE-ID ::= 103
id-PartialReportingIndicator	ProtocolIE-ID ::= 472
id-Permanent-NAS-UE-Identity	ProtocolIE-ID ::= 17
id-PowerAdjustmentType	ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation	ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRqstFDD	ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRqstTDD	ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRqstFDD	ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRqstTDD	ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRgst	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
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id-RL-InformationList-RL-AdditionRqstFDD
                                                                            ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRgst
                                                                            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-Rgst
                                                                            ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp
                                                                            ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd
                                                                            ProtocolTE-TD ::= 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-RNTT
                                                                            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-SetupRgstTDD
                                                                            ProtocolIE-ID ::= 172
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                            ProtocolIE-ID ::= 173
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD
                                                                            ProtocolIE-ID ::= 174
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD
                                                                            ProtocolIE-ID ::= 175
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD
                                                                            ProtocolIE-ID ::= 176
id-UL-DPCH-Information-RL-ReconfPrepFDD
                                                                            ProtocolIE-ID ::= 177
```

id-UL-DPCH-Information-RL-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-ClosedLoopModel-SupportIndicator	ProtocolIE-ID ::= 276
id-ClosedLoopMode2-SupportIndicator	ProtocolIE-ID ::= 277
id-STTD-SupportIndicator	ProtocolIE-ID ::= 279 ProtocolIE-ID ::= 14
id-CFNReportingIndicator	
id-CNOriginatedPage-PagingRqst	ProtocolIE-ID ::= 23 ProtocolIE-ID ::= 24
id-InnerLoopDLPCStatus	
<pre>id-PropagationDelay id-RxTimingDeviationForTA</pre>	ProtocolIE-ID ::= 25 ProtocolIE-ID ::= 36
id-timeSlot-ISCP	ProtocoliE-ID ::= 37
id-CCTrCH-InformationItem-RL-FailureInd	ProtocoliE-ID ::= 37 ProtocoliE-ID ::= 15
id-CCTrCH-InformationItem-RL-RestoreInd	ProtocoliE-ID ::= 16
id-CommonMeasurementAccuracy	ProtocoliE-ID ::= 16
•	ProtocoliE-ID := 280
<pre>id-CommonMeasurementObjectType-CM-Rprt id-CommonMeasurementObjectType-CM-Rqst</pre>	ProtocoliE-ID := 281
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
<del>-</del>	

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

id-HSDSCH-FDD-Information-Response	ProtocolIE-ID ::= 453
id-HSDSCH-FDD-Update-Information	ProtocolIE-ID ::= 466
id-HSDSCH-Information-to-Modify	ProtocolIE-ID ::= 456
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd	ProtocolIE-ID ::= 516
${ t id ext{-}HSDSCHMacdFlowSpecificInformationItem ext{-}RL ext{-}PreemptRequiredInd}$	ProtocolIE-ID ::= 517
id-HSDSCH-RNTI	ProtocolIE-ID ::= 457
id-HSDSCH-TDD-Information	ProtocolIE-ID ::= 458
id-HSDSCH-TDD-Information-Response	ProtocolIE-ID ::= 459
id-HSDSCH-TDD-Update-Information	ProtocolIE-ID ::= 467
id-HSPDSCH-RL-ID	ProtocolIE-ID ::= 463
id-HSDSCH-MACdFlows-to-Add	ProtocolIE-ID ::= 531
id-HSDSCH-MACdFlows-to-Delete	ProtocolIE-ID ::= 532
id-Angle-Of-Arrival-Value-LCR	ProtocolIE-ID ::= 148
id-TrafficClass	ProtocolIE-ID ::= 158
id-TFCI-PC-SupportIndicator	ProtocolIE-ID ::= 248
id-Qth-Parameter	ProtocolIE-ID ::= 253
id-PDSCH-RL-ID	ProtocolIE-ID ::= 323
id-TimeSlot-RL-SetupRspTDD	ProtocolIE-ID ::= 325
id-GERAN-Cell-Capability	ProtocolIE-ID ::= 468
id-GERAN-Classmark	ProtocolIE-ID ::= 469
id-DSCH-InitialWindowSize	ProtocolIE-ID ::= 480
id-UL-Synchronisation-Parameters-LCR	ProtocolIE-ID ::= 464
id-SNA-Information	ProtocolIE-ID ::= 479
id-MAChs-ResetIndicator	ProtocolIE-ID ::= 465
id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD	ProtocolIE-ID ::= 481
id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD	ProtocolIE-ID ::= 482
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD	ProtocolIE-ID ::= 483
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD	ProtocolIE-ID ::= 484
id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD	ProtocolIE-ID ::= 485
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD	ProtocolIE-ID ::= 486
id-DL-CCTrCH-InformationItem-RL-AdditionRqstTDD	ProtocolIE-ID ::= 487
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD	ProtocolIE-ID ::= 488
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD	ProtocolIE-ID ::= 489
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD	ProtocolIE-ID ::= 490
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD	ProtocolIE-ID ::= 491
id-UL-TimingAdvanceCtrl-LCR	ProtocolIE-ID ::= 492
id-HSPDSCH-Timeslot-InformationList-PhyChReconfRqstTDD	ProtocolIE-ID ::= 493
id-HSPDSCH-Timeslot-InformationListLCR-PhyChReconfRqstTDD	ProtocolIE-ID ::= 494
id-HS-SICH-Reception-Quality	ProtocolIE-ID ::= 495
id-HS-SICH-Reception-Quality-Measurement-Value	ProtocolIE-ID ::= 496
id-HSSICH-Info-DM-Rprt	ProtocolIE-ID ::= 497
id-HSSICH-Info-DM-Rqst	ProtocolIE-ID ::= 498
id-HSSICH-Info-DM	ProtocolIE-ID ::= 499
id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD	ProtocolIE-ID ::= 500
id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD	ProtocolIE-ID ::= 501
id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD	ProtocolIE-ID ::= 502
id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD	ProtocolIE-ID ::= 503
id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD	ProtocolIE-ID ::= 504
id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD	ProtocolIE-ID ::= 505
id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD	ProtocolIE-ID ::= 506
id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD	ProtocolIE-ID ::= 507
id-DL-CCTrCH-InformationList-RL-ReconfRspTDD	ProtocolIE-ID ::= 508
id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD	ProtocolIE-ID ::= 509
id-Maximum-DL-Power-TimeslotLCR-InformationItem	ProtocolIE-ID ::= 510

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```
id-Minimum-DL-Power-TimeslotLCR-InformationItem
                                                                            ProtocolIE-ID ::= 511
id-TDD-Support-8PSK
                                                                            ProtocolIE-ID ::= 512
id-TDD-maxNrDLPhysicalchannels
                                                                            ProtocolIE-ID ::= 513
id-ExtendedGSMCellIndividualOffset
                                                                            ProtocolIE-ID ::= 514
id-RL-ParameterUpdateIndicationFDD-RL-InformationList
                                                                            ProtocolIE-ID ::= 518
id-Primary-CPICH-Usage-For-Channel-Estimation
                                                                            ProtocolIE-ID ::= 519
id-Secondary-CPICH-Information-Change
                                                                            ProtocolIE-ID ::= 521
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation
                                                                            ProtocolIE-ID ::= 522
id-UE-Support-Of-Dedicated-Pilots-For-Channel-Estimation-Of-HS-DSCH
                                                                            ProtocolIE-ID ::= 523
id-RL-ParameterUpdateIndicationFDD-RL-Information-Item
                                                                            ProtocolIE-ID ::= 524
id-Phase-Reference-Update-Indicator
                                                                            ProtocolIE-ID ::= 525
id-Unidirectional-DCH-Indicator
                                                                            ProtocolIE-ID ::= 526
id-RL-Information-RL-ReconfPrepTDD
                                                                            ProtocolIE-ID ::= 527
id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD
                                                                            ProtocolIE-ID ::= 528
id-RL-ReconfigurationResponseTDD-RL-Information
                                                                            ProtocolIE-ID ::= 529
id-Satellite-Almanac-Information-ExtItem
                                                                            ProtocolIE-ID ::= 530
id-HSDSCH-Information-to-Modify-Unsynchronised
                                                                            ProtocolIE-ID ::= 533
id-TnlOos
                                                                            ProtocolIE-ID ::= 534
id-RTLoadValue
                                                                            ProtocolIE-ID ::= 535
id-NRTLoadInformationValue
                                                                            ProtocolIE-ID ::= 536
id-PrimaryCCPCH-RSCP-Delta
                                                                            ProtocolIE-ID ::= 539
```

END

### 9.3.7 Container Definitions

```
Presence,
   PrivateIE-ID,
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
__ *********************
-- Class Definition for Protocol IEs
__ ********************
RNSAP-PROTOCOL-IES ::= CLASS {
   &id
                 ProtocolIE-ID
                                            UNIQUE,
   &criticality
                       Criticality,
   &Value,
   &presence
                    Presence
WITH SYNTAX {
                    &criticality
   CRITICALITY
   TYPE
                    &Value
   PRESENCE
                    &presence
     *****************
-- Class Definition for Protocol IEs
__ ********************************
RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
   &id
                 ProtocolIE-ID
                                            UNIQUE,
   &firstCriticality
                       Criticality,
   &FirstValue,
   &secondCriticality
                       Criticality,
   &SecondValue,
   &presence
                    Presence
WITH SYNTAX {
   ID
                 &id
   FIRST CRITICALITY
                       &firstCriticality
                    &FirstValue
   FIRST TYPE
                       &secondCriticality
   SECOND CRITICALITY
                    &SecondValue
   SECOND TYPE
   PRESENCE
                    &presence
-- Class Definition for Protocol Extensions
RNSAP-PROTOCOL-EXTENSION ::= CLASS {
```

```
&id
                                         UNIQUE,
                 ProtocolIE-ID
   &criticality
                       Criticality,
   &Extension,
   &presence
                 Presence
WITH SYNTAX {
   TD
                 &id
                    &criticality
   CRITICALITY
   EXTENSION
                    &Extension
   PRESENCE
                    &presence
  ****************
-- Class Definition for Private IEs
RNSAP-PRIVATE-IES ::= CLASS {
                 PrivateIE-ID,
   &id
   &criticality
                       Criticality,
   &Value,
   &presence
                 Presence
WITH SYNTAX {
   ID
                 &id
   CRITICALITY
                    &criticality
   TYPE
                 &Value
   PRESENCE
                    &presence
    ****************
-- Container for Protocol IEs
  *****************
ProtocolIE-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Single-Container {RNSAP-PROTOCOL-IES : IESSetParam} ::=
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Field {RNSAP-PROTOCOL-IES : IESSetParam} ::= SEQUENCE {
                RNSAP-PROTOCOL-IES.&id
                                               ({IEsSetParam}),
   criticality
                                                      ({IEsSetParam}{@id}),
                 RNSAP-PROTOCOL-IES.&criticality
                                                      ({IEsSetParam}{@id})
   value
                    RNSAP-PROTOCOL-IES.&Value
        ****************
-- Container for Protocol IE Pairs
```

```
*****************
ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-FieldPair {{IEsSetParam}}
ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
               RNSAP-PROTOCOL-IES-PAIR.&id
                                                ({IEsSetParam}),
   firstCriticality
                       RNSAP-PROTOCOL-IES-PAIR.&firstCriticality ({IEsSetParam}{@id}),
                                                          ({IEsSetParam}{@id}),
   firstValue RNSAP-PROTOCOL-IES-PAIR.&FirstValue
   secondCriticality
                       RNSAP-PROTOCOL-IES-PAIR. & secondCriticality ({IEsSetParam}{@id}),
                                                              ({IEsSetParam}{@id})
   secondValue
                    RNSAP-PROTOCOL-IES-PAIR.&SecondValue
   **************
  Container Lists for Protocol IE Containers
  *****************
ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-Container {{IEsSetParam}}
ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-ContainerPair {{IEsSetParam}}
__ *********************
-- Container for Protocol Extensions
  *****************
ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
   SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
   ProtocolExtensionField {{ExtensionSetParam}}
ProtocolExtensionField {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEOUENCE {
   id
                 RNSAP-PROTOCOL-EXTENSION.&id
                                                    ({ExtensionSetParam}),
                                                          ({ExtensionSetParam}{@id}),
   criticality
                    RNSAP-PROTOCOL-EXTENSION.&criticality
                                                          ({ExtensionSetParam}{@id})
   extensionValue
                        RNSAP-PROTOCOL-EXTENSION. & Extension
    *****************
-- Container for Private IEs
PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (1..maxPrivateIEs)) OF
   PrivateIE-Field {{IEsSetParam}}
```

## 9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

The following encoding rules apply in addition to what has been specified in X.691 [20]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [20], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term "leading bit" is to be interpreted as equal to the term "first bit" defined in [18].

### 9.5 Timers

T Preempt

 Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

# Handling of Unknown, Unforeseen and Erroneous Protocol Data

### 10.1 General

Protocol Error cases can be divided into three classes:

- 1. Transfer Syntax Error;
- 2. Abstract Syntax Error;
- 3. Logical Error.

Protocol errors can occur in the following functions within a receiving node.

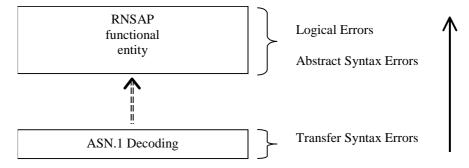


Figure 34: Protocol Errors in RNSAP

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

## 10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error;
- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error;
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message);
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

## 10.3 Abstract Syntax Error

### 10.3.1 General

An Abstract Syntax Error occurs when the receiving functional RNSAP entity:

- 1. Receives IEs or IE groups that cannot be understood (unknown IE id);
- 2 Receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
- 3 Does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
- 4 Receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
- 5 receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

## 10.3.2 Criticality Information

In the RNSAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- 1. Reject IE;
- 2. Ignore IE and Notify Sender;
- 3. Ignore IE.

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

- 1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by a receiving entity (some may still remain unsupported).
- 2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

### 10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, RNSAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field f the concerned object of class RNSAP-PROTOCOL-IES, RNSAP-PROTOCOL-IES-PAIR, RNSAP-PROTOCOL-EXTENSION or RNSAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

- 1. Optional;
- 2. Conditional;
- 3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

## 10.3.4 Not Comprehended IE/IE Group

### 10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

### **Reject IE:**

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

### Ignore IE and Notify Sender:

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

### **Ignore IE:**

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

### 10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

### 10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* IE and *Type of Message* IE according to the following:

### **Reject IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*, that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

### Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message initiating a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "Ignore IE and Notify Sender" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.
- If a response message is received containing one or more IEs/IE groups marked with "Ignore IE and Notify Sender" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

### **Ignore IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE

groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

### 10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

### **Reject IE:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

### Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "Ignore IE and Notify Sender", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

### **Ignore IE:**

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

## 10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

## 10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality information of the IEs/IE groups containing the erroneous values.

#### Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value. Typical cause values are:

### **Protocol Causes:**

- 1. Semantic Error;
- 2. Message not Compatible with Receiver State.

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

#### Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

### 10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality 'ignore and notify' have earlier occurred within the same procedure.

# Annex A (normative): Allocation and Pre-emption of Radio Links in the DRNS

## A.1 Deriving Allocation Information for a Radio Link

### A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or

b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:
  - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.
  - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.
  - If all non-excluded transport channels that are intended to use a Radio Link to be established have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

## A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received *Allocation/Retention Priority* IE for each transport channel shall be used.

Note: The Allocation/Retention Priority IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the UE in the DRNS,
- b) a previous procedure adding or modifying the transport channel, or
- c) the current procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to 'no priority', the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:
  - The transport channels to be added or modified that have the *Priority Level IE* in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.
  - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.
  - If all non-excluded transport channels that are to be added or modified in the Radio Link have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
    - If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

## A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:
  - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.
  - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
     If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

## A.3 The Allocation/Retention Process

The DRNS shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio to be established or modified. The Allocation Information is derived according to clause A.1.
- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the DRNS.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger preemption" and the resource situation so requires, the DRNS may trigger the pre-emption process in clause A.4 to free resources for this allocation request.
- -. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

## A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the DRNS shall initiate the Radio Link Pre-emption procedure for all the UE Contexts having Radio Links selected for pre-emption and start the T<sub>Preempt</sub> timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the  $T_{Preempt}$  timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the  $T_{Preempt}$  timer expires, the DRNS shall reject the procedure that triggered the pre-emption process and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

# Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

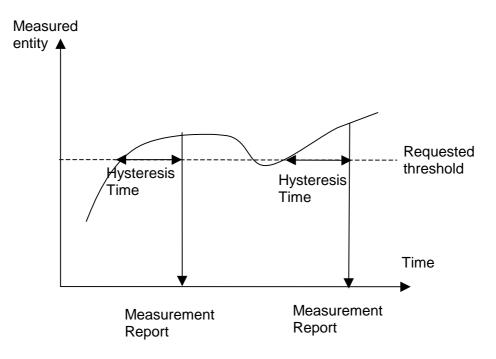


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

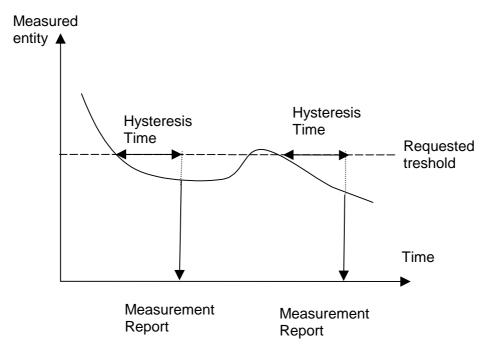


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

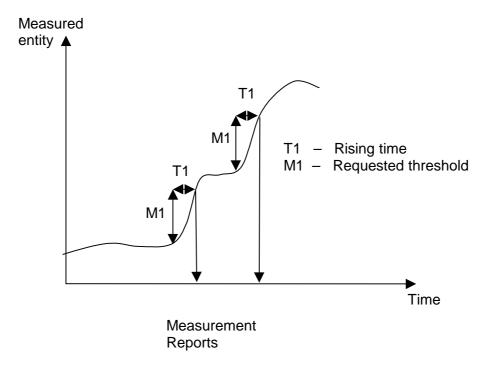


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

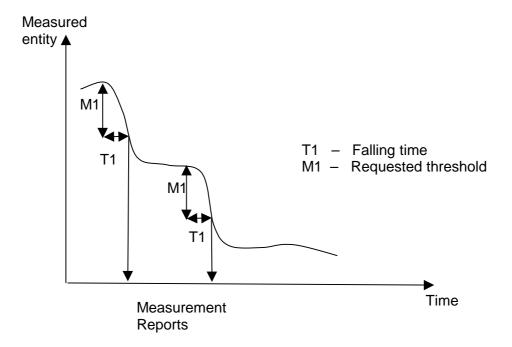


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

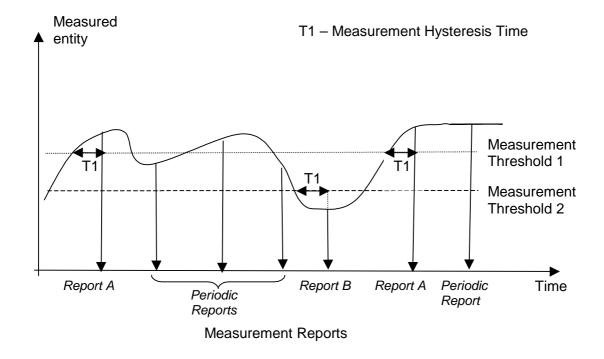


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

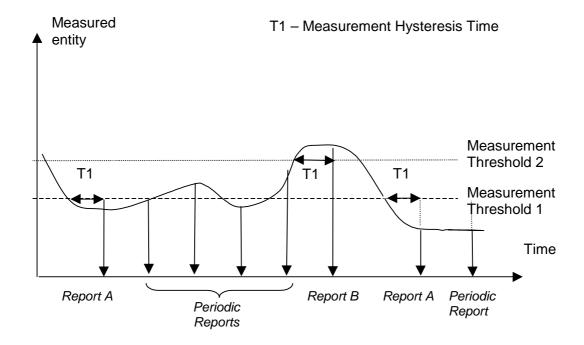


Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Measurement Reports

## Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

## C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE Type and Referenc e	Semantics Description	Criticality	Assigned Criticality
Message Type	М				YES	reject
Transaction ID	M				_	,
Α	M				YES	reject
В	М				YES	reject
>E		1 <maxe></maxe>			EACH	ignore
>>F		1 <maxf></maxf>			-	
>>>G		03,			EACH	ignore
>>H		1 <maxh></maxh>			EACH	ignore
>>>G		03,			EACH	ignore and notify
>>G	M				YES	reject
>>J		1 <maxj></maxj>			-	
>>>G		03,			EACH	reject
С	М				YES	reject
>K		1 <maxk></maxk>			EACH	ignore and notify
>>L		1 <maxl></maxl>			-	
>>>M	0				-	
D	M				YES	reject

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

## C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

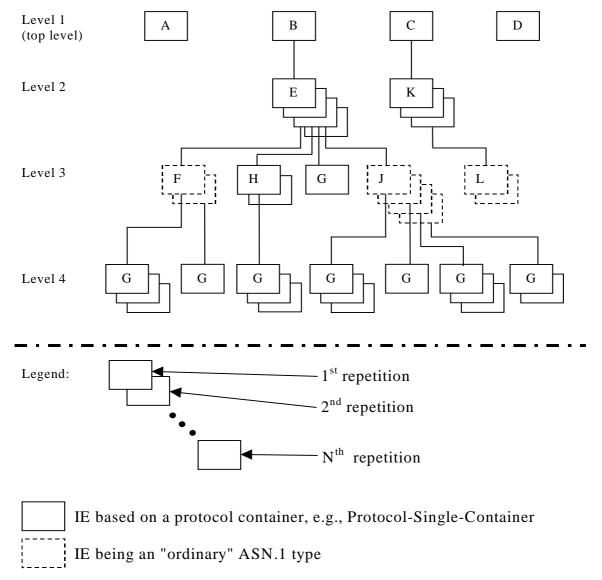
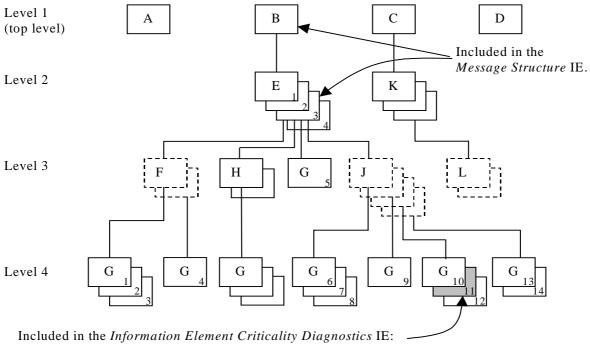


Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE

## C.3 Content of Criticality Diagnostics

## C.3.1 Example 1



- a) IE ID IE
- b) Repetition Number IE

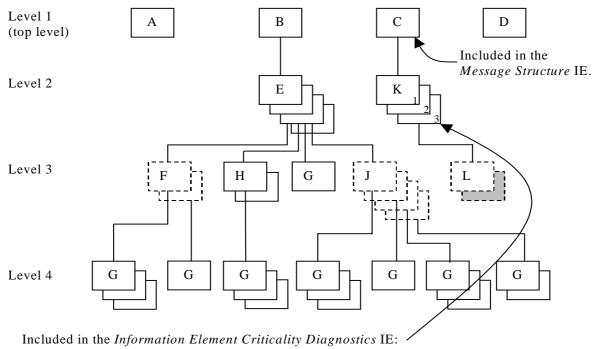
Figure C.2: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment				
IE Criticality reject		Criticality for IE on the reported level, i.e. level 4.				
IE ID	id-G	IE ID from the reported level, i.e. level 4.				
Repetition	11	Repetition number on the reported level, i.e. level 4.				
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is				
		the eleventh occurrence of IE G within the IE E (level 2).				
Type of Error	not					
	underst					
	ood					
Message Structur	e, first repe	etition				
>IE ID	id-B	IE ID from level 1.				
Message Structur	e, second	repetition				
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.				
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.				
Number						

- Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.
- Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

## C.3.2 Example 2



- a) IE ID IE
- b) Repetition Number IE

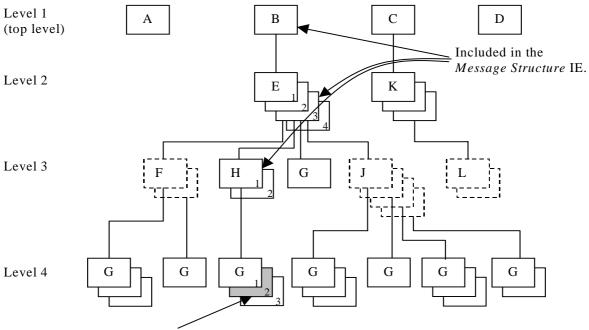
Figure C.3: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment		
IE Criticality	ignore and notify	Criticality for IE on the reported level, i.e. level 2.		
IE ID	id-K	IE ID from the reported level, i.e. level 2.		
Repetition Number	3	Repetition number on the reported level, i.e. level 2.		
Type of Error	not underst ood			
Message Structure, first repetition				
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.		

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

## C.3.3 Example 3



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

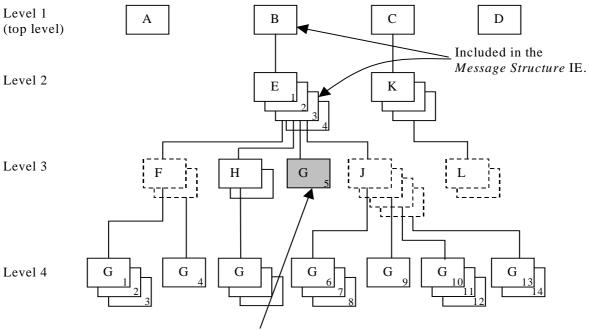
Figure C.4: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment			
IE Criticality	ignore	Criticality for IE on the reported level, i.e. level 4.			
	and				
	notify				
IE ID	id-G	IE ID from the reported level, i.e. level 4.			
Repetition	2	Repetition number on the reported level, i.e. level 4.			
Number					
Type of Error	not				
	underst				
	ood				
Message Structur	e, first repe	etition			
>IE ID	id-B	IE ID from level 1.			
Message Structur	e, second	repetition			
>IE ID	id-E	IE ID from level 2.			
>Repetition	3	Repetition number from level 2.			
Number					
Message Structur	e, third rep	petition			
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.			
>Repetition	1	Repetition number from the lowest level above the reported level, i.e. level 3.			
Number					

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

## C.3.4 Example 4



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

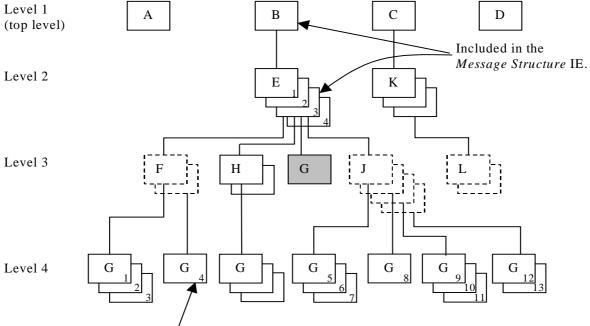
Figure C.5: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment		
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.		
IE ID	id-G	IE ID from the reported level, i.e. level 3.		
Repetition	5	Repetition number on the reported level, i.e. level 3.		
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is		
		the fifth occurrence of IE G within the IE E (level 2).		
Type of Error	not			
	underst			
	ood			
Message Structu	re, first rep	etition		
>IE ID	id-B	IE ID from level 1.		
Message Structu	re, second	repetition		
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.		
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.		
Number				

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

## C.3.5 Example 5



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

Figure C.6: Example of a received RNSAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment			
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.			
IE ID	id-G	IE ID from the reported level, i.e. level 3.			
Repetition Number	4	Repetition number up to the missing IE on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE there have been four occurrences of IE G within the IE E (level 2) up to the missing			
Type of Error	missina	occurrence.			
Message Structure, first repetition					
>IE ID	id-B	IE ID from level 1.			
Message Structur	e, second	repetition			
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.			
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.			

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

### C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
    ProtocolIEs
                         ProtocolIE-Container
                                                           {{ExampleMessage-IEs}},
    ProtocolExtensions ProtocolExtensionContainer {{ExampleMessage-Extensions}}
                                                                                              OPTIONAL.
}
{\tt ExampleMessage-IEs\ RNSAP-PROTOCOL-IES\ ::=\ \{}
    { ID id-A CRITICALITY reject TYPE A PRESENCE mandatory} | { ID id-B CRITICALITY reject TYPE B PRESENCE mandatory} | { ID id-C CRITICALITY reject TYPE C PRESENCE mandatory} | { ID id-D CRITICALITY reject TYPE D PRESENCE mandatory} ,
}
B ::= SEQUENCE {
                      E-List,
    iE-Extensions ProtocolExtensionContainer { {B-ExtIEs} } OPTIONAL,
B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
 \texttt{E-List} \ ::= \ \texttt{SEQUENCE} \ (\texttt{SIZE} \ (\texttt{1..maxE})) \ \texttt{OF} \ \texttt{ProtocolIE-Single-Container} \ \big\{ \ \big\{ \texttt{E-IEs} \big\} \ \big\} 
E-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-E CRITICALITY ignore TYPE E PRESENCE mandatory }
E ::= SEQUENCE {
    h
                      H-List,
    g
                      G-List1,
                      J-List,
    iE-Extensions ProtocolExtensionContainer { {E-ExtIEs} } OPTIONAL,
}
E-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
}
F-List ::= SEQUENCE (SIZE (1..maxF)) OF F
F ::= SEQUENCE {
                      G-List2 OPTIONAL.
    iE-Extensions ProtocolExtensionContainer { {F-ExtIEs} } OPTIONAL,
F-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G2-IEs} }
G2-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY ignore TYPE G PRESENCE mandatory }
H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }
H-IES RNSAP-PROTOCOL-IES ::= {
    H ::= SEQUENCE {
                      G-List3 OPTIONAL,
                                        ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    iE-Extensions
H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container \{ \{G3-IEs\} \}
G3-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory }
G-List1 ::= ProtocolIE-Single-Container { G1-IEs} }
G1-IES RNSAP-PROTOCOL-IES ::= {
    J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
                   G-List4 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
J-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G4-IEs} }
G4-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
C ::= SEQUENCE {
   k
                   K-List,
    iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL,
C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }
K-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory }
K ::= SEQUENCE {
                   L-List,
    \begin{tabular}{ll} \hline iE-ExtensionS & ProtocolExtensionContainer $\{ \ \{K-ExtIEs\} \ \}$ & OPTIONAL, \\ \hline \end{tabular}
K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
                   M OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {L-ExtIEs} } OPTIONAL,
L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExampleMessage-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

# Annex D (normative): DRNS Behaviour at SRNC or RNSAP Signalling Bearer Failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE Contexts related to the SRNC need to be removed in DRNC.

# D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection Failure

Termination of all or some of the UE Contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

### D.1.1 Termination of all UE Contexts Related to a Specific SRNC

Termination of all UE Contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By "all" UE Contexts, it means all UEs having dedicated and/or common channel resources.

### D.1.2 Termination of Specific UE Context

Termination of a specific UE Context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

### D.2 DRNC Actions at UE Context Termination

When termination of the UE Context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE Context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

## Annex E (informative): Change History

				Change I	history
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99755	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	RP-000100	3.1.0	Approved at TSG RAN #7
RAN_07	3.0.0	-	RP-000143	3.1.0	Approved at TSG RAN #7
RAN_07	3.0.0	-	RP-000146	3.1.0	Approved at TSG RAN #7
RAN_08	3.1.0	-	RP-000241	3.2.0	Approved at TSG RAN #8
RAN_08 RAN_08	3.1.0 3.1.0	-	RP-000242 RP-000243	3.2.0 3.2.0	Approved at TSG RAN #8 Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000243	3.2.0	Approved at TSG RAN #8
RAN_09	3.2.0	145-	RP-000244	3.3.0	Approved at 13G KAN #6  Approved at TSG RAN #9
IVAIN_09	3.2.0	149, 151- 154, 156- 164, 166	141 -00037 9	3.3.0	Approved at 150 NAIN #5
RAN_09	3.2.0	168 169 171 173 174 176 178- 180 183- 193	RP-000380	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	194- 200-	RP-000381	3.3.0	Approved at TSG RAN #9
RAN_10	3.3.0	202- 219, 221- 228, 230, 232- 239, 241, 243- 257, 259, 260, 263- 265, 268- 272, 274- 278, 280, 281	RP-000618 RP-000619 RP-000621 RP-000696	3.4.0	Approved at TSG RAN #10
RAN_11	3.4.0	282- 286, 288- 293, 295- 302, 304- 308, 311, 313- 319, 329, 332, 334- 335	RP-010117 RP-010118	3.5.0	Approved at TSG RAN #11

					Change history		
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
March 01	11		310		Approved at TSG RAN #11 and placed under Change Control		4.0.0
March 01	11	RP-010164		<u> </u>			
March 01	11	RP-010159			Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
			328, 336,				
			337				
March 01	11	RP-010160			Approved at TSG RAN #11 and placed under Change Control	<b>-</b>	4.0.0
			323,		, , , , , , , , , , , , , , , , , , ,		
			339				
06/2001	12	RP-010378	341,		Approved at TSG RAN#12	4.0.0	4.1.0
			343,				
			345,				
			347, 349,				
			351,				
			353,				
			355,				
			357,				
			359				
06/2001	12	RP-010379	361,		Approved at TSG RAN#12	4.0.0	4.1.0
			363, 365,				
			367,				
			369,				
			378,				
			380,				
			382,				
			388,				
06/2001	12	RP-010380	390 399,		Approved at TSG RAN#12	4.0.0	4.1.0
00/2001	12	KF-010300	403,		Approved at 130 KAN#12	4.0.0	4.1.0
			405,				
			407,				
			409,				
			411,				
00/0004	10	DD 040004	414		A TOO DANKE	400	1.1.0
06/2001	12	RP-010394	372,		Approved at TSG RAN#12	4.0.0	4.1.0
			373, 374,				
			375,				
			376,				
			379,				
			380,				
			391,				
			393,				
09/2001			412	i			
	13	RP-010583	412 371	2	Ambiguity in CM handling	4.1.0	4.2.0
	13 13	RP-010583 RP-010583	371	2	Ambiguity in CM handling Corrections to the DSCH Code Mapping IE	4.1.0	4.2.0 4.2.0
09/2001 09/2001	1	RP-010583 RP-010583 RP-010583	371 416		Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification	4.1.0 4.1.0 4.1.0	
09/2001	13	RP-010583 RP-010583	371 416 418		Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION	4.1.0	4.2.0
09/2001 09/2001 09/2001	13 13 13	RP-010583 RP-010583 RP-010583	371 416 418 425	1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message	4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001	13 13 13	RP-010583 RP-010583 RP-010583 RP-010583	371 416 418 425 432	1 2	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use	4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583	371 416 418 425 432 437	1 2 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583	371 416 418 425 432 437 440	1 2	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583	371 416 418 425 432 437 440 442	1 2 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583	371 416 418 425 432 437 440 442 444	1 2 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583	371 416 418 425 432 437 440 442 444 446	1 2 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13	RP-010583	371 416 418 425 432 437 440 442 444 446 450	1 2 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584 RP-010584	371 416 418 425 432 437 440 442 444 446 450 460	1 2 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13	RP-010583	371 416 418 425 432 437 440 442 444 446 450 460 463	1 2 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584 RP-010584 RP-010584	371 416 418 425 432 437 440 442 444 446 450 460 463 475	1 2 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584	371 416 418 425 432 437 440 442 444 446 450 460 463 475 466 468	1 2 1 1 1 1 1 1 2 2 2	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584	371 416 418 425 432 437 440 442 444 446 450 460 463 475 466 468 470	1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of chapter 10	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584 RP-010584	371 416 418 425 432 437 440 442 444 446 450 460 463 475 466 468 470	1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of use of Diversity Control Indicator	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584	371 416 418 425 432 437 440 442 444 446 450 463 475 466 468 470 472	1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional Ies Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of chapter 10 Clarification of use of Diversity Control Indicator Clarification on the reference of the 'Neighbouring TDD Cell	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584	371 416 418 425 432 437 440 442 444 446 450 463 475 466 468 470 472	1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of chapter 10 Clarification of use of Diversity Control Indicator Clarification on the reference of the 'Neighbouring TDD Cell Information LCR'	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584	371 416 418 425 432 437 440 442 444 446 450 463 475 466 468 470 472 415	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of chapter 10 Clarification of use of Diversity Control Indicator Clarification on the reference of the 'Neighbouring TDD Cell Information LCR' Allowed Combinations of Dedicated Measurement Type and the	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584	371 416 418 425 432 437 440 442 444 446 450 463 475 466 468 470 472 415	1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of chapter 10 Clarification of use of Diversity Control Indicator Clarification on the reference of the 'Neighbouring TDD Cell Information LCR' Allowed Combinations of Dedicated Measurement Type and the Reporting Characteristics Type	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0
09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001 09/2001	13 13 13 13 13 13 13 13 13 13 13 13 13 1	RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010583 RP-010584	371 416 418 425 432 437 440 442 444 446 450 463 475 466 468 470 472 415 420 423	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Corrections to the DSCH Code Mapping IE Transport bearer replacement clarification Correction to the Error handling of the ERROR INDICATION message Cell Reserved for operator use Clarification of Abnormal Conditions/Unsuccessful Operation TFCS Correction for TDD Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les Correction to Downlink Signaling Transfer Bitstrings ordering Mapping of TFCS to TFCI TDD Channelisation code range definition Clarification of coordinated DCHs Clarification on the Time Slot LCR Rnsap criticality Clarification of chapter 10 Clarification of use of Diversity Control Indicator Clarification on the reference of the 'Neighbouring TDD Cell Information LCR' Allowed Combinations of Dedicated Measurement Type and the	4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0 4.2.0

09/2001 1 09/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1	13 13 14 14 14	RP-010596 RP-010596 RP-010596 RP-010896 RP-010855	455 461	1	Clarification of Abnormal Conditions/Unsuccessful Operation Correct ion to position reporting CR to 25.423 v4.1.0: RX timing deviation as dedicated	4.1.0 4.1.0 4.1.0	4.2.0 4.2.0 4.2.0
12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1 12/2001 1	14 14 14	RP-010896		1	CR to 25.423 v4.1.0: RX timing deviation as dedicated	4.1.0	4.2.0
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03/2002 1		DD_020404	543	2	RNSAP Signalling support for flexible hard split	4.4.0	5.0.0
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03/2002	15	RP-020194	582	3	RNSAP changes for TFCI power control in DSCH hard split mode	4.4.0	5.0.0
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06/2002	16	RP-020406		1	Correction to RL Restore Indication	5.0.0	5.1.0
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06/2002		RP-020432 RP-020422		1	Removal of syntax errors from ASN.1 Interaction between HSDPA and IP transport in UTRAN	5.0.0	5.1.0
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06/2002	16			١.	Correction to the use of the CFN IE / SFN IE in the Measurement	5.0.0	5.1.0
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03/2002	''	111 -020019	000		Tromoval of DELIX 101 F10-DOOF1	0.2.0	3.3.0
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12/2003	22	RP-030686		1	RT Load Value Clarification	5.7.0	5.8.0
12/2003	22	RP-030677		1	RNSAP TDD Review	5.7.0	5.8.0
12/2003	22	RP-030684		1	Removal of the ambiguity about the activation time	5.7.0	5.8.0
12/2003	22	RP-030690		2	Correction to Addition of HS-DSCH MAC-d Flows	5.7.0	5.8.0
12/2003	22	RP-030695		2	Unsynchronised RL Reconfiguration for HSDPA	5.7.0	5.8.0
12/2003	22	RP-030694		2	TNL QoS for uplink IP traffic	5.7.0	5.8.0
12/2003	22	RP-030689	891		Correction of Transmission Gap Pattern Sequence Information	5.7.0	5.8.0
12/2003	22	RP-030683	893		Information Exchange Initiation behavior correction	5.7.0	5.8.0
12/2003	22	RP-030677	894	2	RNSAP review	5.7.0	5.8.0
03/2004	23	RP-040052	900		Correction of RL Congestion Indication	5.8.0	5.9.0
03/2004	23	RP-040070	907		Ignore Criticality for RL Activation Command	5.8.0	5.9.0
03/2004	23	RP-040070	909		Ignore Criticality for RL Parameter Update	5.8.0	5.9.0
03/2004	23	RP-040065	911	1	Corrections for HS-DSCH Configuration Signalling	5.8.0	5.9.0
03/2004	23	RP-040066	913	1	Priority Queue ID for HSDPA	5.8.0	5.9.0
03/2004	23	RP-040070	921		Correction of ASN.1 code	5.8.0	5.9.0
03/2004	23	RP-040053	924		Alignment with 23.032 correction of Included Angle for Ellipsoid Arc	5.8.0	5.9.0
03/2004	23	RP-040067	929		Correction Related to HS-DSCH Information Response	5.8.0	5.9.0
03/2004	23	RP-040059	931		Correction to the threshold of Rx Timing Deviation LCR in tabular	5.8.0	5.9.0
03/2004	23	RP-040068	933		Extension of the range of PCCPCH RSCP	5.8.0	5.9.0
03/2004	23	RP-040069	935		Introduce the description of AOA measurement in the Allowed	5.8.0	5.9.0
					Combinations of Dedicated Measurement		
03/2004	23	RP-040070	941		Criticality Settings for HSDPA.	5.8.0	5.9.0
03/2004	23	RP-040070	943		GA Incompatibility issue	5.8.0	5.9.0
03/2004	23	RP-040064	948		Setting of TGPSI	5.8.0	5.9.0
03/2004	23	RP-040057	950		DCH Information Response Issue	5.8.0	5.9.0
06/2004	24	RP-040175	954	1	Correction the presence of Traffic Class IE	5.9.0	5.10.0
06/2004	24	RP-040175		1	Inclusion of scrambling code information in HS-DSCH FDD	5.9.0	5.10.0
				-	Information Response IE		
06/2004	24	RP-040178	960	1	Node B usage of the MAC-hs re-ordering buffer size	5.9.0	5.10.0
06/2004	24	RP-040180		1	Unsuccessful Operation of RL Setup Procedure for HSDPA	5.9.0	5.10.0
06/2004	24	RP-040179		-	Clarification on number of and capacity reporting of Priority Queues	5.9.0	5.10.0
06/2004	24	RP-040181		-	Power Balancing Corrections	5.9.0	5.10.0
06/2004	24	RP-040175		-	HSDPA Corrections in RL Reconfiguration	5.9.0	5.10.0
09/2004	25	RP-040302		-	Correction to tabular text associated with TDD DPCH Offset IE		5.11.0
09/2004	25	RP-040300		1	Traffic Class IE in RNSAP		5.11.0
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