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Foreword

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

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

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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 anymore only after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed. In particular, the Prepared Reconfiguration still exists if the object (e.g. Radio Link) concerned by the Synchronised Radio Link Reconfiguration (e.g. in the case of an HS-DSCH Setup) is removed, but the UE Context still exists.

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
CDSS Controlling PSS

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

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

PCS Personal Communication Services
PDSCH Physical Downlink Shared Channel

PDU Protocol Data Unit PhCH Physical Channel

PICH Paging Indication Channel Pos Position or Positioning

PRACH Physical Random Access Channel

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

RANAP Radio Access Network Application Part

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

RNC Radio Network Controller RNS Radio Network Subsystem

RNSAP Radio Network Subsystem Application Part
RNTI Radio Network Temporary Identifier

RRC Radio Resource Control

RT Real Time

RSCP Received Signal Code Power

SBSS Serving BSS

Rx Receive or Reception

Sat Satellite

SCCP Signalling Connection Control Part

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

SDU Service Data Unit SF System Frame

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

SRNC Serving RNC SRNS Serving RNS

S-RNTI Serving Radio Network Temporary Identifier

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)".

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, [TDD – DSCHs, USCHs] and HS-DSCH between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH, [TDD – DSCH, USCH] and HS-DSCH 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, HS-DSCH and USCH) over Iur interface.

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

5.2 Parallel Transactions

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

6 Services Expected from Signalling Transport

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

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

7 Functions of RNSAP

The RNSAP protocol provides the following functions:

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

- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;
- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;
- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;
- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;
- GERAN Signalling Transfer. This function allows the SBSS and DBSS, the SRNC and DBSS or the SBSS and DRNC to pass information between the UE/MS and the SRNC/SBSS on an SRB2/CCCH controlled by the DBSS/DRNC:
- Paging. This function allows the SRNC/SBSS to page a UE in a URA/GRA or a cell in the DRNS;
- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS;
- 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
Compressed Mode Control [FDD]	b) Radio Link Restoration a) Radio Link Setup
Compressed wode Control [FDD]	b) Radio Link Setup
	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
Measurements on Dedicated Resources	Cancellation a) Dedicated Measurement Initiation
Measurements on Dedicated Resources	b) Dedicated Measurement Reporting
	c) Dedicated Measurement Termination
	d) Dedicated Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
DCH Rate Control	a) Radio Link Setup
	b) Radio Link Addition
	c) Unsynchronised Radio Link Reconfiguration
	d) Synchronised Radio Link Reconfiguration
	Preparation e) Radio Link Congestion
CCCH Signalling Transfer	a) Uplink Signalling Transfer
Coort digitalining Transfer	b) Downlink Signalling Transfer
GERAN Signalling Transfer	a) GERAN Uplink Signalling Transfer
	b) Downlink Signalling Transfer
Paging	Paging
Common Transport Channel Resources	a) Common Transport Channel Resources
Management	Initiation
	b) Common Transport Channel Resources
Relocation Execution	Release Relocation Commit
Reporting of General Error Situations	Error Indication
Measurements on Common Resources	a) Common Measurement Initiation
modelation of Common Resources	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
DI Douter Timeslet Correction (TDD)	d) Information Exchange Failure
DL Power Timeslot Correction [TDD]	Downlink Power Timeslot Control
Reset	Reset

7.1 RNSAP functions and elementary procedures for lur-g.

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

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

Function	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	
	24212111111	RESPONSE	DADIO I INII
Synchronised	RADIO LINK	RADIO LINK	RADIO LINK
Radio Link	RECONFIGURATION PREPARE	RECONFIGURATION	RECONFIGURATION
Reconfiguration	PREPARE	READY	FAILURE
Preparation Unsynchronised	RADIO LINK	RADIO LINK	RADIO LINK
Radio Link	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
Reconfiguration	REQUEST	RESPONSE	FAILURE
Physical Channel	PHYSICAL CHANNEL	PHYSICAL CHANNEL	PHYSICAL CHANNEL
Reconfiguration	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
3	REQUEST	COMMAND	FAILURE
Dedicated	DEDICATED	DEDICATED	DEDICATED
Measurement	MEASUREMENT	MEASUREMENT	MEASUREMENT
Initiation	INITIATION REQUEST	INITIATION	INITIATION FAILURE
		RESPONSE	
Common	COMMON	COMMON	COMMON TRANSPORT
Transport	TRANSPORT	TRANSPORT	CHANNEL RESOURCES
Channel	CHANNEL	CHANNEL	FAILURE
Resources	RESOURCES	RESOURCES	
Initialisation	REQUEST	RESPONSE	COMMACAL
Common Measurement	COMMON MEASUREMENT	COMMON MEASUREMENT	COMMON MEASUREMENT
Initiation	INITIATION REQUEST	INITIATION	INITIATION FAILURE
mination	INTIATION NEQUEST	RESPONSE	INTIATIONTALONE
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

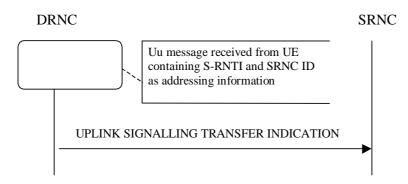


Figure 1: Uplink Signalling Transfer procedure, Successful Operation

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 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 and/or FACH resources in old cell.

If the DRNS has any RACH 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 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.]

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

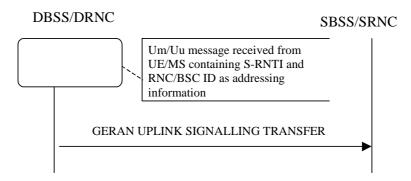


Figure 1A: GERAN Uplink Signalling Transfer procedure, Successful Operation

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 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 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

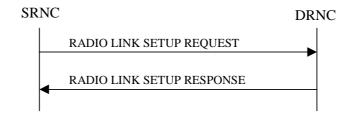


Figure 5: Radio Link Setup procedure: Successful Operation

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.

[TDD - DSCH(s)]:

[TDD - If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs. 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.]

[TDD - 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.]

[TDD - 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*".]

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.]

[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", or "Closed loop mode1", 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 δP_{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_{init}* shall be set to the power level indicated by the *Initial DL TX Power* IE (if received) or the decided DL TX power level on each DL channelisation code of a RL based on the *Primary CPICH Ec/No* IE or the *Enhanced Primary CPICH Ec/No* IE.]

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

Neighbouring Cell Handling:

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

- The DRNC shall include in the RADIO LINK SETUP RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK SETUP RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Model 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 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.
- 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 *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.

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 [TDD - and for each DSCH 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

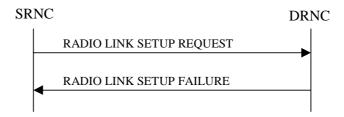


Figure 6: Radio Link Setup procedure: Unsuccessful Operation

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.]

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 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.]

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 [FDD - 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.

[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

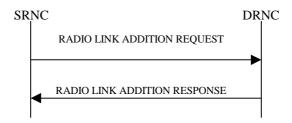


Figure 7: Radio Link Addition procedure: Successful Operation

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.]

[TDD - 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.]

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]).]

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 δP_{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.]

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.

Neighbouring Cell Handling:

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

- The DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include in the RADIO LINK ADDITION RESPONSE message the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Model Support Indicator IE, 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 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.]
- 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.

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.

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

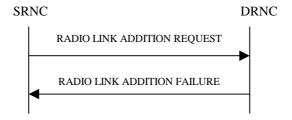


Figure 8: Radio Link Addition procedure: Unsuccessful Operation

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.]

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

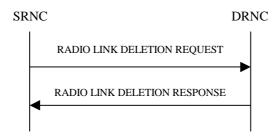


Figure 9: Radio Link Deletion procedure, Successful Operation

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

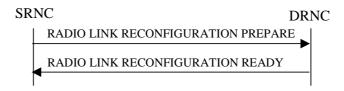


Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

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 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 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.]

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.]

[TDD - DSCH Addition/Modification/Deletion]:

[TDD - 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.]

[TDD - 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.]

[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 DSCH.]

[TDD - 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.]

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

- [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 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.]

[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.]

[TDD - 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.]
- The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD 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 for a Priority Queue in the *HS-DSCH Information To Modify* 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 for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* 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 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.]

[FDD – If the RADIO LINK RECONFIGURATION READY message includes the *Primary CPICH Usage For Channel Estimation* IE and/or the *Secondary CPICH Information Change* IE, the DRNC shall avoid the new configuration in which neither the Primary CPICH nor the Secondary CPICH is used as a Phase Reference for this Radio Link.]

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 [TDD - DSCHs To Modify IE, DSCHs To Add IE, 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 δP_{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

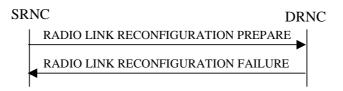


Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

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.

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".]

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.

If the RADIO LINK RECONFIGURATION PREPARE message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the UE Context, 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

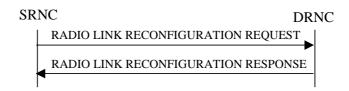


Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

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.]

[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.]
- [FDD The DRNC shall include the *Measurement Power Offset* IE in the *HS-DSCH 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.]
- The DRNC may include the *Transport Layer Address* IE and the *Binding ID* IE for HS-DSCH MAC-d flow in the [FDD *HS-DSCH FDD Information Response* IE] [TDD *HS-DSCH TDD 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 for a Priority Queue in the *HS-DSCH Information To Modify Unsynchronised* 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 Oueues 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 for a Priority Queue in the *HS-DSCH MAC-d Flows To Add* 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 δP_{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

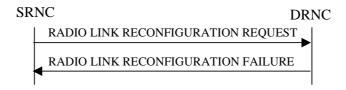


Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

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.

If the RADIO LINK RECONFIGURATION REQUEST message includes *HS-DSCH Information* IE and the HS-DSCH is already configured in the UE Context, 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

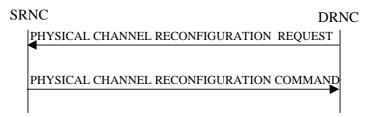


Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

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

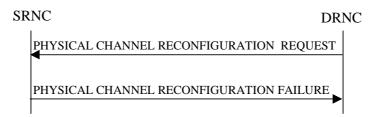


Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

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

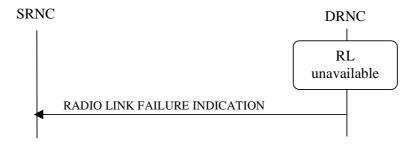


Figure 18: Radio Link Failure procedure, Successful Operation

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

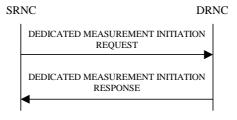


Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

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 layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows:

 F_n is the updated filtered measurement result

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

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

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

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

Response message

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

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

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

8.3.11.3 Unsuccessful Operation

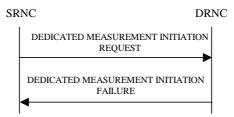


Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

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

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

Typical cause values are:

Radio Network Layer Causes:

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

Miscellaneous Causes:

- Control Processing Overload
- HW Failure

8.3.11.4 Abnormal Conditions

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

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	Х	Х	Х	Х	Х	Х	Х		
Transmitted Code Power	Х	Х	Х	Х	Х	Х	Х	Х		
RSCP	Х	Х	Х	Х	Х	Х	Х	Х		
Rx Timing Deviation	Х	Х	Х	Х			Х	Х		
Round Trip Time	Х	Х	Х	Х	Х	Х	Х	Х		
Rx Timing Deviation LCR	Х	Х	Х	Х			Х	Х		
HS-SICH Reception Quality	Х	Х	Х	Х			Х	Х		
Angle Of Arrival LCR	Х	Х								

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

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

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

8.3.12 Dedicated Measurement Reporting

8.3.12.1 General

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

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

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

8.3.12.2 Successful Operation



Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

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

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

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

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

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

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

8.3.12.3 Abnormal Conditions

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8.3.13 Dedicated Measurement Termination

8.3.13.1 General

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

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

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

8.3.13.2 Successful Operation



Figure 23: Dedicated Measurement Termination procedure, Successful Operation

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

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

8.3.13.3 Abnormal Conditions

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8.3.14 Dedicated Measurement Failure

8.3.14.1 General

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

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

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

8.3.14.2 Successful Operation



Figure 24: Dedicated Measurement Failure procedure, Successful Operation

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

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

Typical cause values are:

Miscellaneous Causes:

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

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Control [FDD]

8.3.15.1 General

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

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

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

8.3.15.2 Successful Operation



Figure 25: Downlink Power Control procedure, Successful Operation

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

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

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

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

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

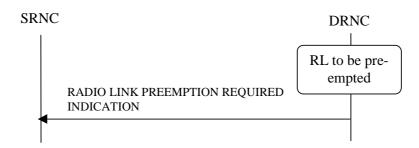


Figure 26B: Radio Link Pre-emption procedure, Successful Operation

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

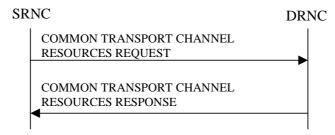


Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation

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 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 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

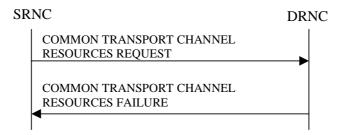


Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

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 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 and/or FACH resources allocated for the UE.

8.4.2.3 Abnormal Conditions

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8.5 Global Procedures

8.5.1 Error Indication

8.5.1.1 General

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

This procedure shall use the signalling bearer mode specified below.

8.5.1.2 Successful Operation

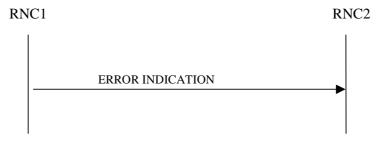


Figure 30: Error Indication procedure, Successful Operation

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

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

When a message using connectionless mode of the signalling bearer is received in the DRNC and there is no UE Context in the DRNC as indicated by the *D-RNTI* IE, the DRNC shall include the D-RNTI from the received message

in the *D-RNTI* IE and set the *Cause* IE to "Unknown RNTI" in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

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

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

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

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

8.5.1.2.1 Successful Operation for lur-g

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

8.5.1.3 Abnormal Conditions

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8.5.2 Common Measurement Initiation

8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC₁ and the RNC to which the request is sent is referred to as RNC₂.

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

8.5.2.2 Successful Operation

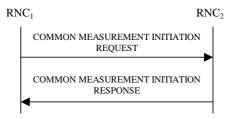


Figure 30A: Common Measurement Initiation procedure, Successful Operation

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

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

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

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

Common measurement type

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

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

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

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

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

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

Report characteristics

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

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

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

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

If the *Report Characteristics* IE is set to "Event B", the RNC₂ shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold, as specified by the *Measurement Threshold* IE,

and then stays below the threshold for the requested hysteresis time, as specified by the *Measurement Hysteresis Time* IE. If the *Measurement Hysteresis Time* IE is not included, the RNC₂ shall use the value zero for the hysteresis time.

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

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

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

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

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

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

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

$$F_n = (M_n - M_{n-1}) \mod 37158912000000 - ((SFN_n - SFN_{n-1}) \mod 4096) *10*3.84*10^3*16 + F_{n-1}$$
 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_n.

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

 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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

a is the last reported SFN-SFN.

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

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

- If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the RNC₂ shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The RNC₂ shall initiate the Common Measurement Reporting

procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The P_n and F_n are calculated according to the following:

$$P_n=b$$
 for $n=0$

[FDD -
$$P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \mod 4096)/100 + P_{n-1}) \mod 614400 \text{ for } n>0]$$

[FDD - $F_n = min((M_n - P_n) \mod 614400, (P_n - M_n) \mod 614400)$ for n > 0]

$$[TDD - P_n = ((a/16) * (15*(SFN_n - SFN_{n-1}))mod 4096 + (TS_n - TS_{n-1}))/1500 + P_{n-1}) mod 40960 for n>0]$$

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

 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_n of] the Frame SFN_n.

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

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

If the Report Characteristics IE is not set to "On Demand", the RNC₂ is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more, the RNC₂ shall terminate the measurement locally without reporting this to RNC₁.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the RNC_2 shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Common measurement accuracy

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC₂ shall use the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE included in the *Report Characteristics* IE according to the following:.

- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class A", then the concerned RNC₂ shall perform the measurement with the highest supported accuracy within the accuracy classes A, B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates the "Class B", then the concerned RNC₂ shall perform the measurements with the highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates "Class C", then the concerned RNC₂ shall perform the measurements with the highest supported accuracy according to class C.
- If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the concerned RNC₂ shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

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

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

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

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

Response message

If the RNC₂ was able to initiate the measurement requested by RNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message.

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

- The COMMON MEASUREMENT INITIATION RESPONSE message shall 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 RNC₂ shall include the *SFN* IE in the COMMON MEASUREMENT INITIATION RESPONSE message,. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the *SFN Reporting Indicator* IE is ignored.
- If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then the RNC₂ shall report all the available measurements in the Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE, and the RNC₂ shall report the neighbouring cells with no measurement result available in the Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE. For all available measurement results, the RNC₂ shall include in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE, if available.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the Report Characteristics IE is set to "On Demand" or "On Modification", the RNC₂ shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.5.2.2.1 Successful Operation for lur-g

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC_1 to the BSS_2 or from the BSS_1 to the RNC_2/BSS_2 .

Upon receipt, the RNC₂/BSS₂ shall initiate the requested measurement according to the parameters given in the request.

Common measurement type on Iur-g

If the Common Measurement Type IE is set to "load", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "RT load", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.2.2.

Report characteristics on Iur-g

The Report Characteristics IE indicates how the reporting of the measurement shall be performed. This IE is used as described in section 8.5.2.2.

Response message for Iur-g

If the RNC₂/BSS₂ was able to initiate the measurement requested by RNC₁/BSS₁ it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On Demand", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.

8.5.2.3 Unsuccessful Operation

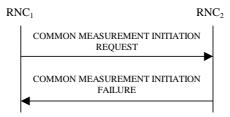


Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the RNC₂ shall send a COMMON MEASUREMENT INITIATION FAILURE message. The message shall include the same *Measurement ID* IE that was used in the COMMON MEASUREMENT INITIATION REQUEST message and shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

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

8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell 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 RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is not set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Common Measurement Accuracy* IE is included in the COMMON MEASUREMENT INITIATION REQUEST

message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type indicated in the COMMON MEASUREMENT INITIATION REQUEST message the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

Table 5: Allowed Common Measurement Type and Report Characteristics Type Combinations

Common measurement type	Report characteristics type									
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification	
Received total wide band power	Х	Х	Х	Х	Х	Х	Х	Х		
Transmitted Carrier Power	X	X	Х	Х	X	Х	Х	X		
UL Timeslot ISCP	Х	Х	Χ	Χ	Χ	Χ	Χ	Χ		
Load	Х	Х	Х	Χ	Χ	Χ	Χ	Χ		
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X	
SFN-SFN Observed Time Difference	X	X							Х	
RT load	Х	Х	Χ	Χ	Х	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 RNS₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.]

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the RNS₂ shall reject the Common Measurement Initiation procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

8.5.2.4.1 Abnormal Conditions for lur-g

The measurements which can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X".

Table 6: Allowed Common measurement type on lur and lur-g interfaces

Common Measurement Type	Int	erface
	lur	lur-g
Received total wide band power	X	
Transmitted Carrier Power	X	
UL Timeslot ISCP	X	
Load	X	X
UTRAN GPS Timing of Cell	X	
Frames for LCS		
SFN-SFN Observed Time	X	
Difference		
RT load	X	X
NRT load Information	X	Χ

If the RNC₂ receives from the BSS₁ a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the RNC₂ shall reject the Common Measurement Initiation procedure.

If the BSS_2 receives from the BSS_1/RNC_1 a COMMON MEASUREMENT INITIATION REQUEST message in which a measurement, which is not applicable on the Iur-g interface, is requested, the BSS_2 shall reject the Common Measurement Initiation procedure.

If the RNC₂ receives from the BSS₁ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the RNC₂ shall ignore that IE.

If the BSS_2 receives from the BSS_1 / RNC₁ a COMMON MEASUREMENT INITIATION REQUEST message in which the *SFN reporting indicator* IE is set to "FN Reporting Required", the BSS_2 shall ignore that IE.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table in section 8.5.2.4 marked with "X". For not allowed combinations, the RNC₂/BSS₂ shall reject the Common Measurement Initiation procedure.

8.5.3 Common Measurement Reporting

8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

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

8.5.3.2 Successful Operation



Figure 30C: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the RNC₂ shall initiate the Common Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref. [23] and [24]), the *Common Measurement Value Information* IE shall indicate Measurement not Available.

For measurements included in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE, the RNC₂ shall include the *SFN-SFN Quality* IE and the *SFN-SFN Drift Rate Quality* IE if available.

If the Common Measurement Type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the RNC₂ shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.5.3.2.1 Successful Operation for lur-g

If the requested measurement reporting criteria are met, the RNC₂/BSS₂ shall initiate a Measurement Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement ID* IE shall be set to the Common Measurement ID provided by RNC₁/BSS₁ when initiating the measurement with the Common Measurement Initiation procedure.

If the Common measurement type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was "SFN-SFN Observed Time Difference", then RNC₂ shall include in the COMMON MEASUREMENT REPORT all the available measurements in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and shall include the neighbouring cells with no measurement result available in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the Common measurement type provided by RNC₁ when initiating the measurement with the Common Measurement Initiation procedure was not set to "SFN-SFN Observed Time Difference" and the SFN Reporting Indicator when initiating the measurement was set to "FN Reporting Required", the RNC₂ shall include the SFN IE in the COMMON MEASUREMENT REPORT message. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference", then the SFN Reporting Indicator IE is ignored.

8.5.3.3 Abnormal Conditions

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8.5.4 Common Measurement Termination

8.5.4.1 General

This procedure is used by an RNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

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

8.5.4.2 Successful Operation



Figure 30D: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon receipt, RNC₂ shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

8.5.4.2.1 Successful Operation for Iur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Common Measurement Termination procedure as specified in section 8.5.4.2.

8.5.4.3 Abnormal Conditions

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8.5.5 Common Measurement Failure

8.5.5.1 General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

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

8.5.5.2 Successful Operation



Figure 30E: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from RNC $_2$ to RNC $_1$ to inform the RNC $_1$ that a previously requested measurement can no longer be reported. RNC $_2$ has locally terminated the indicated measurement. The RNC $_2$ 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 RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Common Measurement Failure procedure as specified in section 8.5.5.2.

8.5.5.3 Abnormal Conditions

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8.5.6 Information Exchange Initiation

8.5.6.1 General

This procedure is used by an RNC to request the initiation of an information exchange with another RNC.

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

8.5.6.2 Successful Operation

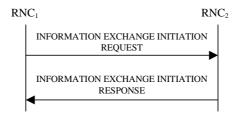


Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC₁ to RNC₂.

Upon receipt, the RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

The Information Report Characteristics IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the RNC₂ shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the RNC₂ shall report the requested information immediately and then shall periodically initiate the Information Reporting procedure for all the requested information, with the report frequency indicated by the *Information Report Periodicity* IE.

If the *Information Report Characteristics* IE is set to "On Modification", the RNC₂ shall report the requested information immediately if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the RNC₂ shall initiate the Information Reporting procedure when the requested information becomes available. The RNC₂ shall then initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to "IPDL Parameters", the RNC₂ shall initiate the Information Reporting procedure when any change in the parameters occurs.
- If the *Information Type Item* IE is set to "DGPS Corrections", the RNC₂ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE in the *Information Threshold* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Recovery Assistance", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *Sat ID* IEs.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the Information Type Item IE is set to "GPS Information" and the GPS Information Item IE includes "GPS UTC Model", the RNC $_2$ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN $_t$ parameter.
- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.

- If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- If the *Information Type* IE is set to "Cell Capacity Class", the RNC₂ shall initiate the Information Reporting procedure for uplink and downlink cell capacity class when any change has occurred. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink cell capacity information.
- If any of the above *Information Type* IEs becomes temporarily unavailable, the RNC₂ shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in the *Requested Data Value Information* IE. If the Information becomes available again, the RNC₂ shall initiate the Information Reporting procedure for this specific Information.

Response message:

If the RNC₂ is able to determine the information requested by the RNC₁, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the *Information Exchange ID* IE set to the same value that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

8.5.6.2.1 Successful Operation for lur-g

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from BSS₁ to BSS₂/RNC₂ or by RNC₁ to BSS₂.

Upon receipt, the BSS₂/RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics on Iur-g:

If the *Information Type Item* IE is set to "Cell Capacity Class", the RNC₂/BSS₂ shall initiate measurements and report results as described in section 8.5.6.2.

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed. This IE is used as described in section 8.5.6.2.

8.5.6.3 Unsuccessful Operation

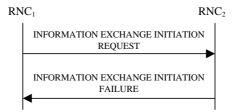


Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation

If the requested Information Type received in the *Information Type* IE indicates a type of information that RNC₂ cannot provide, the RNC₂ shall reject the Information Exchange Initiation procedure.

If the requested information provision cannot be accessed, the RNC₂ shall reject the procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The message shall include the *Information Exchange ID* IE set to the same value that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

- Information temporarily not available.
- Information Provision not supported for the object.

8.5.6.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC₂ shall reject the Information Exchange Initiation procedure and shall send the INFORMATION EXCHANGE INITIATION FAILURE message.

The allowed combinations of the Information type and Information Report Characteristics type are shown in the table below marked with "X". For not allowed combinations, the RNC₂ shall reject the Information Exchange Initiation procedure using the INFORMATION EXCHANGE INITIATION FAILURE message.

Table 6a: Allowed Information Type and Information Report Characteristics type combinations

Туре	Information Report Characteristics Type				
	On Demand	Periodic	On Modification		
UTRAN Access Point Position with Altitude Information	Х				
UTRAN Access Point Position	Х				
IPDL Parameters	X	X	X		
GPS Information	X	X	X		
DGPS Corrections	X	X	X		
GPS RX Pos	X				
SFN-SFN Measurement Reference Point Position	Х				
Cell Capacity Class	X	•	X		

8.5.6.4.1 Abnormal Conditions for lur-g

The information types that can be requested on the Iur and Iur-g interfaces are shown in the table below marked with "X". For information types that are not applicable on the Iur-g interface, the BSS shall reject the Information Exchange Initiation procedure.

Table 7: Allowed Information types on lur and lur-g interfaces

Information Type	Int	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	Х	Х

8.5.7 Information Reporting

8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

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

8.5.7.2 Successful Operation



Figure 30H: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the RNC₂ shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

The Requested Data Value IE shall include at least one IE containing the data to be reported.

8.5.7.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Information Reporting procedure as specified in section 8.5.7.2.

8.5.7.3 Abnormal Conditions

-

8.5.8 Information Exchange Termination

8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

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

8.5.8.2 Successful Operation



Figure 30I: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon receipt, the RNC₂ shall terminate the information exchange corresponding to the *Information Exchange ID* IE provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

8.5.8.2.1 Successful Operation for lur-g

The RNC_1/BSS_1 and RNC_2/BSS_2 shall use the Information Exchange Termination procedure as specified in section 8.5.8.2.

8.5.8.3 Abnormal Conditions

-

8.5.9 Information Exchange Failure

8.5.9.1 General

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

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

8.5.9.2 Successful Operation



Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC₂ to the RNC₁, to inform the RNC₁ that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The RNC₂ shall include in the INFORMATION EXCHANGE FAILURE INDICATION message the *Information Exchange ID* IE set to the same value provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure, and the RNC₂ shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

8.5.9.2.1 Successful Operation for lur-g

The RNC₁/BSS₁ and RNC₂/BSS₂ shall use the Information Exchange Failure procedure as specified in section 8.5.9.2.

8.5.10 Reset

8.5.10.1 General

The purpose of the reset procedure is to align the resources in RNC₁ and RNC₂ in the event of an abnormal failure.

The procedure uses connectionless signalling.

8.5.10.2 Successful Operation

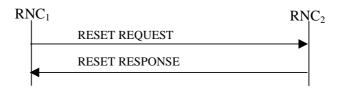


Figure 30K: Reset procedure, Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the RNC₁ to the RNC₂.

If the *Reset Indicator* IE is set to "Context", then:

- For all indicated UE Contexts identified by the *S-RNTI* IE, the RNC₂ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.
- For all indicated UE Contexts identified by the *D-RNTI* IE, the RNC₂ in the role of SRNC, shall remove the information related to the RNC₁ for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

If the *Reset Indicator* IE is set to "Context Group", then:

- For all indicated UE Context Groups identified by the *S-RNTI Group* IE, the RNC₂ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.

If the Reset Indicator IE is set to "All Contexts", then the RNC₂ shall:

- In the role of DRNC, remove all the UE Contexts for which the RNC₁ is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.
- In the role of SRNC, remove the information related to the RNC_1 for all the UE Contexts and all the radio resources allocated for these UE Contexts.

For all the removed UE Contexts and for all the UE Contexts for which the RNC₂ has removed information related to the RNC₁, the RNC₂ shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the RNC₂ shall return the RESET RESPONSE message to the RNC₁.

8.5.10.3 Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

9 Elements for RNSAP Communication

9.1 Message Functional Definition and Content

9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, in which the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

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	М		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	M		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	М		9.2.2.8		_	
>Not Used	0		NULL		_	
>Not Used	0		NULL		_	
>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	M		9.2.2.9		_	
>Number of DL	М		9.2.2.26A		_	
Channelisation Codes						
>TFCI Signalling Mode	М		9.2.2.46		_	
>TFCI Presence	C- SlotFormat		9.2.1.55		_	
>Multiplexing Position	M		9.2.2.26		_	
>Power Offset Information		1			_	
>>P01	M		Power Offset 9.2.2.30	Power offset for the TFCI bits.	_	
>>PO2	M		Power Offset 9.2.2.30	Power offset for the TPC bits.	_	
>>PO3	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		_	
DCH Information	М		DCH FDD Information 9.2.2.4A		YES	reject
RL Information		1 <maxn oofRLs></maxn 			EACH	notify
>RL ID	M		9.2.1.49		_	
>C-ID	М		9.2.1.6		_	
>First RLS Indicator	M		9.2.2.16A		_	
>Frame Offset	М		9.2.1.30		_	
>Chip Offset	M		9.2.2.1		_	
>Propagation Delay	0		9.2.2.33		_	
>Diversity Control Field	C –		9.2.1.20		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
	NotFirstRL					
>Initial DL TX Power	0		DL Power 9.2.1.21A		_	
>Primary CPICH Ec/No	0		9.2.2.32		_	
>Not Used	0		NULL		_	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		_	
>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
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

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 <i>Diversity Mode</i> IE in <i>UL DPCH Information</i>
	IE is not equal to "none".
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></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></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></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			
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	reject
>>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	M		9.2.1.59		_	
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
RL Information Response		1 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
>RL Set ID	M		9.2.2.35		_	
>URA Information	0		9.2.1.70B		_	
>SAI	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	М		FDD DL Code Information 9.2.2.14A		_	
>CHOICE Diversity Indication	М				_	
>>Combining					_	
>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	_	
>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>Non Combining or First RL					_	
>>>DCH Information Response	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	1-1	_	
>Not Used	0		NULL		_	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		_	

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	2000 ipiioii		or in ounity
>PC Preamble	M		9.2.2.27a		_	
>SRB Delay	M		9.2.2.39A		ı	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
Uplink SIR Target	0		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0		9.2.1.09		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
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
RL Information Response		01		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point	0		9.2.1.70A		_	
Position			0.00.405			
>UL Time Slot ISCP Info	M		9.2.3.13D		_	
>Maximum Uplink SIR	M		Uplink SIR		_	
M: : 11 E 1 OID			9.2.1.69			
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		_	
>Maximum Allowed UL Tx Power	M		9.2.1.35		1	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	-	
>Cell Parameter ID	0		9.2.1.8	1	_	
>Sync Case	Ō		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		_	
>UL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		_	
>>UL DPCH Information		01			YES	ignore
>>>Repetition Period	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		-	
>>Uplink SIR Target CCTrCH	0		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 	0.2.1.00	For DCH	GLOBAL	ignore
>>CCTrCH ID	M	3/	9.2.3.2		_	
>>DL DPCH Information	101	01	3.2.3.2		YES	ignore
>>>Repetition Period	M	01	9.2.3.7		-	ignore
///repetition remod	IVI		3.2.3.1	L	_	l

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	ignoro
>>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></maxnoof 				
>>DSCH ID	М		9.2.3.2G		_	
>>DSCH Flow Control Information	М		9.2.3.21		-	
>>Binding ID	0		9.2.1.3		-	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Eayer readless	M		9.2.3.13		_	
Management						
>USCH Information		0			GLOBAL	ignore
Response		<maxnoof USCHs></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 TV Davian	N 4		9.2.1.21A			
>Minimum DL TX Power	M		DL Power		_	
>UARFCN	0		9.2.1.21A UARFCN	Corresponds		
>UARFCN	0		9.2.1.66	to Nt in ref.	_	
			9.2.1.00	[7]		
>Cell Parameter ID	0		9.2.1.8	[7]	_	
	0					
>SCTD Indicator			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	М		9.2.3.7E		_	
Configuration						
>Secondary CCPCH Info	0		9.2.3.7F		_	
TDD LCR						
>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	M		9.2.3.2		_	
>>UL DPCH Information	1	01			YES	ignore
LCR						
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>UL Timeslot	M		9.2.3.13G		_	
Information LCR						
>>Uplink SIR Target	0		Uplink SIR		YES	ignore
CCTrCH			9.2.1.69			Ü
>DL CCTrCH Information		0 <maxno< td=""><td></td><td>For DCH</td><td>GLOBAL</td><td>ignore</td></maxno<>		For DCH	GLOBAL	ignore
LCR		ofCCTrCH				Ü
		sLCR>				
>>CCTrCH ID	М		9.2.3.2		_	
>>DL DPCH Information		01			YES	ignore
LCR					_	3
>>>Repetition Period	М		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>>DL Timeslot	M		9.2.3.2E			
Information LCR	'*'		0.2.0.22			
>>TSTD Indicator	М		9.2.3.13E		_	
>DCH Information Response	O		9.2.1.16A		YES	ignore
>DSCH Information	0	0	3.2.1.10A		GLOBAL	
Response LCR		<maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>ignore</td></maxnoof<>			GLOBAL	ignore
Response LOR		DSCHsLC				
		R>				
. Dech ID	N 4	1/2	0.0.0.00			
>>DSCH ID >>DSCH Flow Control	M		9.2.3.2G 9.2.3.2I		_	
	IVI		9.2.3.21		_	
Information	0		9.2.1.3			
>>Binding ID					_	
>>Transport Layer Address	0	1	9.2.1.62	1	_	
>>Transport Format	М		9.2.3.13		_	
Management	1	1		1	01.0541	•
>USCH Information		0			GLOBAL	ignore
Response LCR		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
		USCHsLC				
LICOLLID	N4	R>	00011			
>>USCH ID	M	-	9.2.3.14		_	
>>Binding ID	0	1	9.2.1.3		_	
>>Transport Layer	0		9.2.1.62		_	
Address	.			1		
>>Transport Format	М		9.2.3.13		_	
Management	<u> </u>					
>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		9.2.3.2J		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	 	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]	-	
>>>Not Used	0		NULL		_	
>>>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
>>>HCS Prio	0		9.2.1.30N		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	М		9.2.1.59		_	,
CHOICE Cause Level	М				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	ianore

9.1.6 RADIO LINK ADDITION REQUEST

9.1.6.1 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		_	,
Uplink SIR Target	М		Uplink SIR 9.2.1.69		YES	reject
RL Information		1 <maxn oofRLs- 1></maxn 			EACH	notify
>RL ID	М		9.2.1.49		_	
>C-ID	M		9.2.1.6		_	
>Frame Offset	М		9.2.1.30		_	
>Chip Offset	М		9.2.2.1		_	
>Diversity Control Field	М		9.2.1.20		_	
>Primary CPICH Ec/No	0		9.2.2.32		_	
>Not Used	0		NULL		_	
>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
Active Pattern Sequence Information	0		9.2.2A	Either all the already active Transmission Gap Sequence(s) are addressed (Transmission Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated.	YES	reject
DPC Mode	0		9.2.2.12A		YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore

Range bound	Explanation			
maxnoofRLs	Maximum number of radio links for one UE.			

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE Type and 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		_	.,
>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	reject
>>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	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	10,000
RL Information Response	1	1 <maxnoof< td=""><td>0.2.1.00</td><td></td><td>EACH</td><td>ignore</td></maxnoof<>	0.2.1.00		EACH	ignore
-		RLs-1>				
>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		YES	ignore
			Code			
			Information 9.2.2.14A			
>CHOICE Diversity Indication	М				_	
>>Combining					_	
>>>RL ID	М		9.2.1.49	Reference RL ID	_	
>>>DCH Information Response	0		9.2.1.16A	TAL ID	YES	ignore
>>Non Combining					_	
>>>DCH Information Response	М		9.2.1.16A		_	
>SSDT Support Indicator	М		9.2.2.43		_	
>Minimum Uplink SIR	M		Uplink SIR		_	
-			9.2.1.69			
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		-	
>Maximum Allowed UL Tx Power	М		9.2.1.35		-	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		-	
>Minimum DL TX Power	М		DL Power		_	
7			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	М		9.2.1.44		_	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>HCS Prio	0		9.2.1.30N		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 Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	10,000
RL Information Response		01		Mandatory for 3.84Mcps TDD, not applicable to 1.28Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		_	
>UL Time Slot ISCP Info	M		9.2.3.13D		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		-	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>PCCPCH Power	М		9.2.1.43		_	
>Timing Advance Applied	M		9.2.3.12A		_	
>Alpha Value	M		9.2.3.a		_	
>UL PhysCH SF Variation	M		9.2.3.13B		_	
>Synchronisation Configuration	М		9.2.3.7E		_	
>Secondary CCPCH Info	0		9.2.3.7B		_	
>UL CCTrCH Information		0 <maxnoof CCTrCHs></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М	001101101	9.2.3.2		_	
>>UL DPCH		01	0.2.0.2		YES	ignore
Information						.9
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	М		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>>UL Timeslot Information	М		9.2.3.13C		_	
>DL CCTrCH Information		0 <maxnoof CCTrCHs></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>DL DPCH Information		01			YES	ignore
>>>Repetition Period	М		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	Semantics Description	Criticality	Assigned Criticality
			Reference			
>DCH Information		01			_	
>>CHOICE Diversity Indication	М				_	
>>>Combining					_	
>>>RL ID	М		9.2.1.49	Reference RL	_	
>>>>DCH Information Response >>>Non Combining	0		9.2.1.16A		YES	ignore
>>>DCH Information	М		9.2.1.16A			
Response						
>DSCH Information Response		0 <maxnoof DSCHs></maxnoof 			GLOBAL	ignore
>>DSCH ID	М		9.2.3.2G		_	
>>Transport Format Management	М		9.2.3.13		_	
>>DSCH Flow Control Information	М		9.2.3.21		_	
>>CHOICE Diversity Indication	0				_	
>>>Non Combining					_	
>>>>Binding ID	0		9.2.1.3		_	
>>>>Transport Layer Address	0		9.2.1.62		-	
>USCH Information Response		0 <maxnoof USCHs></maxnoof 			GLOBAL	ignore
>>USCH ID	М		9.2.3.14		_	
>>Transport Format Management	М		9.2.3.13		-	
>>CHOICE Diversity Indication	0				-	
>>>Non Combining					_	
>>>>Binding ID	0		9.2.1.3		_	
>>>Transport Layer Address	0		9.2.1.62		_	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		-	
>Neighbouring GSM Cell Information	0		9.2.1.41C		-	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
RL Information Response LCR		01		Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	M		9.2.1.70B		_	
>SAI	М		9.2.1.52		_	
>Cell GAI >UTRAN Access Point	0		9.2.1.5A 9.2.1.70A		<u> </u>	
Position >UL Time Slot ISCP Info	M		9.2.3.13H		_	
LCR >Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	М		Uplink SIR		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
			9.2.1.69			
>PCCPCH Power	M		9.2.1.43		_	
>Maximum Allowed UL Tx Power	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	M		9.2.3.13B		_	
>Synchronisation Configuration	M		9.2.3.7E		_	
>Secondary CCPCH Info TDD LCR	0		9.2.3.7F		_	
>UL CCTrCH Information LCR		0 <maxnoof CCTrCHsLC R></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М	7.7	9.2.3.2		_	
>>UL DPCH	141	01	0.2.0.2		YES	ignore
Information LCR		J ,			0	1911010
>>>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			0.2.000			
>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>				9
>>CCTrCH ID	M		9.2.3.2		_	
>>DL DPCH		01			YES	ignore
Information LCR						· ·
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		-	
>>>DL Timeslot Information LCR	М		9.2.3.2E		_	
>>>TSTD Indicator	M		9.2.3.13E		_	
>DCH Information Response	М		9.2.1.16A		_	
>DSCH Information Response LCR		0 <maxnoof DSCHsLCR ></maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.3.2G		_	
>>DSCH Flow Control Information	М		9.2.3.21		_	
>>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		9.2.3.14		_	
>>Transport Format Management	M		9.2.3.13		-	
>>CHOICE Diversity Indication	0				-	
>>Non Combining					_	
>>>Binding ID	0		9.2.1.3		_	
>>>Transport	0		9.2.1.62		_	
Layer Address						

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Neighbouring UMTS Cell Information	0		9.2.1.41A		I	
>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	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	•
CHOICE Cause Level	М				YES	ignore
>General					_	<u> </u>
>>Cause	М		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		_	
>>Successful RL Information Response		0 <maxnoof RLs-2></maxnoof 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>RL Set ID	M		9.2.2.35		_	
>>>URA Information	0		9.2.1.70B		_	
>>>SAI	M		9.2.1.52		_	
>>>Cell GAI	0		9.2.1.5A		_	
>>>UTRAN Access Point Position	0		9.2.1.70A		_	
>>>Received Total Wide Band Power	М		9.2.2.35A		_	
>>>Secondary CCPCH Info	0		9.2.2.37B		_	
>>>DL Code Information	М		FDD DL Code Information 9.2.2.14A		YES	ignore
>>>CHOICE Diversity Indication	М				_	
>>>Combining					_	
>>>>RL ID	М		9.2.1.49	Reference RL ID	_	
>>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>>Non Combining	N4		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	М		9.2.1.35		_	
>>>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>>>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>>>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>>>Neighbouring GSM Cell Information	0		9.2.1.41C		-	
>>>Primary CPICH	М		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		I	
>>>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
>>>HCS Prio	0		9.2.1.30N		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	М		9.2.1.59		_	
CHOICE Cause Level	М				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
M	N 4				٧٥	!
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1 <maxno ofRLs></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	Semantics Description	Criticality	Assigned Criticality
Message Type	M		Reference 9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	-
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.11 RADIO LINK RECONFIGURATION PREPARE

9.1.11.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		ı	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		01			YES	reject
>UL Scrambling Code	0		9.2.2.53		ı	
>UL SIR Target	0		Uplink SIR 9.2.1.69		ı	
>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		_	
>Not Used	0		NULL		_	
>Not Used	0		NULL		_	
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	0		9.2.2.26		_	
>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 <maxnoof DCHs></maxnoof 			GLOBAL	reject
>DCH ID	М		9.2.1.16		_	
RL Information		0 <maxnoof RLs></maxnoof 	-		EACH	reject
>RL ID	М		9.2.1.49		_	
>Not Used	0		NULL		_	
>Not Used	0		NULL		_	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		-	
>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
>Phase Reference Update Indicator	0		9.2.2.27B	-	YES	ignore
Transmission Gap Pattern	0		9.2.2.47A		YES	reject

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Sequence Information						
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 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

Condition	Explanation
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 <i>UL DPCH Information</i> IE and is not equal to
	"none".

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a 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
Magazara Tura	N 4		Reference		VEC	raigat
Message Type Transaction ID	M		9.2.1.40 9.2.1.59		YES	reject
Allowed Queuing Time	0		9.2.1.39		YES	reject
UL CCTrCH To Add		0 <maxno ofCCTrCH s></maxno 	9.2.1.2	For DCH and USCH	EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
>TFCS	М		9.2.1.63	For the UL.	_	
>TFCI Coding	M		9.2.3.11		_	
>Puncture Limit	M		9.2.1.46		_	
>UL SIR Target	0		Uplink SIR 9.2.1.69	Mandatory for 1.28Mcps TDD; not applicable to 3.84Mcps TDD	YES	reject
>TDD TPC Uplink Step Size	0		9.2.3.10a	Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD	YES	reject
UL CCTrCH To Modify		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	0		9.2.1.63	For the UL.	_	
>TFCI Coding	0		9.2.3.11		_	
>Puncture Limit	0		9.2.1.46		_	
>UL SIR Target	0		Uplink SIR 9.2.1.69	Applicable to 1.28Mcps TDD only	YES	reject
>TDD TPC Uplink Step Size	0		9.2.3.10a	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH to Delete		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
DL CCTrCH To Add		0 <maxno ofCCTrCH s></maxno 		For DCH and DSCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	M		9.2.1.63	For the DL.	_	
>TFCI Coding	M	ļ	9.2.3.11		_	
>Puncture Limit	M	ļ	9.2.1.46		_	
>TPC CCTrCH List		0 <maxno CCTrCHs></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 Modify		0 <maxno ofCCTrCH s></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></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></maxno 			EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
DCHs To Modify	0		TDD DCHs To Modify 9.2.3.8B		YES	reject
DCHs To Add	0		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID DSCHs To Modify	M	0 <maxno ofDSCHs></maxno 	9.2.1.16		– GLOBAL	reject
>DSCH ID	М	012001102	9.2.3.2G		_	
>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></maxno 			GLOBAL	reject
>DSCH ID	М		9.2.3.2G		_	
USCHs To Modify		0 <maxno ofUSCHs></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		1	
>Scheduling Priority Indicator	0		9.2.1.51A		_	
>BLER	0		9.2.1.4		_	
>Transport Bearer Request Indicator	M		9.2.1.61		_	
>TNL QoS	0		9.2.1.56A		YES	ignore
>RB Info		0 <maxno ofRB></maxno 		All Radio Bearers using this USCH	-	
>>RB Identity	M		9.2.3.5B		_	
>Traffic class	0		9.2.1.58A 9.2.1.3	Shall be	YES YES	ignore
>Binding ID				ignored if bearer establishmen t with ALCAP.		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></maxno 			GLOBAL	reject
>USCH ID	M		9.2.3.14		_	
Primary CCPCH RSCP	0		9.2.3.5	A 11 11 1	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 9.2.1.300A		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
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	M		9.2.3.13J		-	
>Uplink Synchronisation Frequency	М		9.2.3.131		-	
RL Information		0 <maxno ofRLs.</maxno 			YES	ignore
>RL ID	М		9.2.1.49		ı	
>RL Specific DCH Information	0		9.2.1.49A		1	
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 and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information Response		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		-	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		I	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		I	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	0		FDD DL Code Information 9.2.2.14A		YES	ignore
>DCH Information Response	0		9.2.1.16A		YES	ignore
>Not Used	0		NULL		_	
>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
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></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></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></maxno0 		Applicable to 3.84Mcps TDD only	_	
>>>Time Slot	M		9.2.1.56		_	
>>>>Midamble Shift And Burst Type	0		9.2.3.4		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>UL Code Information		0 <maxno0 fDPCHs></maxno0 			_	
>>>>DPCH ID	М		9.2.3.3		_	
>>>>TDD Channelisation Code	0		9.2.3.8		-	
>>>UL Timeslot Information LCR		0 <maxnoo fTSLCR></maxnoo 		Applicable to 1.28Mcps TDD only	GLOBAL	ignore
>>>Time Slot LCR	М		9.2.3.12a		_	
>>>Midamble Shift LCR	0		9.2.3.4C		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>UL Code		0 <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></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></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></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></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></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></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></maxnoof 			GLOBAL	ignore
>>>DPCH ID	M		9.2.3.3		ı	
>>DL DPCH to be Added LCR		01		Applicable to 1.28Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	М		9.2.3.6			
>>>TDD DPCH Offset	M		9.2.3.8A		-	
>>>DL Timeslot Information LCR	M		9.2.3.2E		_	
>>CCTrCH Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH Applicable to 3.84Mcps TDD only	YES	ignore
>>CCTrCH Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH Applicable to 3.84Mcps TDD only	YES	ignore
>DCH Information Response	0		9.2.1.16A	•	YES	ignore
>DSCH to be Added or Modified		0 <maxnoof DSCHs></maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.3.2G		-	
>>Transport Format Management	М		9.2.3.13		-	
>>DSCH Flow Control Information	М		9.2.3.21		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		-	
>USCH to be Added or Modified		0 <maxnoof USCHs></maxnoof 			GLOBAL	ignore
>>USCH ID	М		9.2.3.14		-	
>>Transport Format Management	М		9.2.3.13		_	
>>Binding ID	0		9.2.1.3		-	
>>Transport Layer Address	0		9.2.1.62		_	
>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	

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		9.2.3.2J		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	М		9.2.1.59		_	
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.5		_	
>RL Specific					_	
>>RLs Causing Reconfiguration Failure		0 <maxnoof RLs></maxnoof 			EACH	ignore
>>>RL ID	М		9.2.1.49		_	
>>>Cause	М		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ianore

Range bound	Explanation	
maxnoofRLs	Maximum number of RLs for a UE.	

9.1.15 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	

9.1.16 RADIO LINK RECONFIGURATION REQUEST

9.1.16.1 FDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.63	TFCS for the UL.	-	
DL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.63	TFCS for the DL.	_	
>TFCI Signalling Mode	0		9.2.2.46		_	
>Limited Power Increase	0		9.2.2.21A		_	
DCHs To Modify	0		FDD DCHs To Modify 9.2.2.13C		YES	reject
DCHs To Add	0		DCH FDD Information 9.2.2.4A		YES	reject
DCHs To Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID	M		9.2.1.16		_	
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
RL Information		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	М		9.2.1.49		_	
>RL Specific DCH Information	0		9.2.1.49A		-	
DL Reference Power Information	0		9.2.2.10C		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></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></maxnoof 			EACH	notify
>CCTrCH ID	M		9.2.3.2		ı	
DL CCTrCH Information To Modify		0 <maxnoof CCTrCHs></maxnoof 			EACH	notify
>CCTrCH ID	М		9.2.3.2		-	
>TFCS	0		9.2.1.63		_	
DL CCTrCH Information to Delete		0 <maxnoof CCTrCHs></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></maxnoof 			GLOBAL	reject
>DCH ID	M		9.2.1.16		_	
RL Information		0 <maxnoof RLs></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></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		_	- ,
RL Information Response		0 <maxno ofRLs></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></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 ></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	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	
CHOICE Reporting Object	M			Object for which the Failure shall be reported.	YES	ignore
>RL					_	
>>RL Information		1 <maxnoofrl s></maxnoofrl 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	М		9.2.1.5		_	
>RLS				FDD only	_	
>>RL Set Information		1 <maxnoofrl Sets></maxnoofrl 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>>>Cause	M		9.2.1.5		_	
>CCTrCH				TDD only		
>>RL ID	М		9.2.1.49		_	
>>CCTrCH List		1 <maxnoc CTrCHs></maxnoc 			EACH	ignore
>>>CCTrCH ID	М		9.2.3.2		_	
>>>Cause	М		9.2.1.5		_	

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE.
maxnoofRLSets	Maximum number of RL Sets for one UE.
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.19 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and 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	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		120	ignore
Power Adjustment Type	M		9.2.2.28		YES	ignore
DL Reference Power	C-		DL Power		YES	ignore
BE Reference Fower	Common		9.2.1.21A		120	ignore
Inner Loop DL PC Status	0		9.2.2.21a		YES	ignore
DL Reference Power	C-	1 <maxnoo< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoo<>			EACH	ignore
Information	Individual	fRLs>				
>RL ID	M		9.2.1.49		-	
>DL Reference Power	M		DL Power		_	
			9.2.1.21A			
Max Adjustment Step	C-		9.2.2.23		YES	ignore
	CommonO rIndividual					
Adjustment Period	C-		9.2.2.B		YES	ignore
,,	CommonO		0.2.2.2		0	.g
	rIndividual					
Adjustment Ratio	C-		9.2.2.C		YES	ignore
	CommonO					_
	rIndividual					

Condition	Explanation
Common	The IE shall be present if the Power Adjustment Type IE is set to
	"Common".
Individual	The IE shall be present if the Power Adjustment Type IE is set to
	"Individual".
CommonOrIndividual	The IE shall be present if the Power Adjustment Type IE is set to
	"Common" or "Individual".

Range Bound	Explanation			
maxnoofRLs	Maximum number of RLs for one UE.			

9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

9.1.21.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1			YES	reject
>RL ID	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></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></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 ></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		1	
>DL CCTrCH Information		0 <maxno ofCCTrCH s></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></maxno 		Applicable to 3.84Mcps TDD only	I	
>>>>Time Slot	M		9.2.1.56			
>>>Midamble Shift And Burst Type	0		9.2.3.4		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>>DL Code Information	0		TDD DL Code Information 9.2.3.8C		-	
>>>DL Timeslot Information LCR		0 <maxno OfTSLCR ></maxno 		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	M		9.2.3.12a		-	
>>>Midamble Shift LCR	0		9.2.3.4C		_	
>>>TFCI Presence	0	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></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 ></maxno 		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>Time Slot LCR	M		9.2.3.12a		_	
>>Midamble Shift LCR	M		9.2.3.4C		_	

Range bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
maxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD.
maxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD.
maxnoofDLts	Maximum number of downlink time slots per Radio Link for 3.84Mcps TDD.
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD.

9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

IE/Group Name	Presence	Range	IE Type	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	ignore

9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	ignore
UC-ID	M		9.2.1.71		YES	ignore
SAI	M		9.2.1.52		YES	ignore
Cell GAI	0		9.2.1.5A		YES	ignore
C-RNTI	M		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
Propagation Delay	M		9.2.2.33		YES	ignore
STTD Support Indicator	M		9.2.2.45		YES	ignore
Closed Loop Mode1 Support	M		9.2.2.2		YES	ignore
Indicator						
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
DPC Mode Change Support	0		9.2.2.56		YES	ignore
Indicator						
Common Transport Channel	0		9.2.1.12F		YES	Ignore
Resources Initialisation Not						
Required						
Cell Capability Container FDD	0		9.2.2.D		YES	ignore
SNA Information	0		9.2.1.52Ca		YES	ignore

9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	_
UC-ID	M		9.2.1.71		YES	ignore
SAI	M		9.2.1.52		YES	ignore
Cell GAI	0		9.2.1.5A		YES	Ignore
C-RNTI	M		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
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		_	Ğ
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	М		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B	URA information may be GRA information	YES	ignore

9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
C-ID	M		9.2.1.6	May be a GERAN cell identifier	YES	ignore
D-RNTI	M		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
D-RNTI Release Indication	M		9.2.1.25		YES	ignore

9.1.26 RELOCATION COMMIT

IE/Group Name	Presence	Range	IE Type and 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	0		9.2.1.47		YES	ignore

9.1.27 PAGING 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		_	
CHOICE Paging Area	M				YES	ignore
>URA					_	
>>URA-ID	М		9.2.1.70	May be a GRA-ID.	-	
>Cell				UTRAN only	_	
>>C-ID	M		9.2.1.6		-	
SRNC-ID	М		RNC-ID 9.2.1.50	May be a BSC-ID.	YES	ignore
S-RNTI	М		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 Connected Mode UE		01			YES	ignore
>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></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></maxn 		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.3ad		ı	
>RLS				FDD only	-	
>>RL Set Information		1 <maxn oofRLSet s></maxn 			EACH	reject
>>>RL-Set-ID	M		9.2.2.35		_	
>ALL RL			NULL		_	
>ALL RLS			NULL	FDD only	_	
Dedicated Measurement Type	M		9.2.1.18	•	YES	reject
Measurement Filter Coefficient	0		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
CFN reporting indicator	M		FN		YES	reject
			reporting indicator 9.2.1.28A			-
CFN	0		9.2.1.9		YES	reject
Partial Reporting Indicator	0		9.2.1.41Fa		YES	ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started
	on.

9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and 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></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		I	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	-	
>>>HS-SICH ID	0		9.2.3.3ad	TDD only	YES	reject
>RLS or ALL RLS				FDD only See Note 2	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			EACH	ignore
>>>RL Set ID	М		9.2.2.35		-	
>>>Dedicated Measurement Value	M		9.2.1.19		_	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	_	
Criticality Diagnostics	0		9.2.1.13		YES	Ignore

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started
	on.

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Measurement ID	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></maxno 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Individual Cause	0		Cause 9.2.1.5		-	
>>Successful RL Information		0 <maxno ofRLs-1></maxno 			EACH	ignore
>>>RL ID	М		9.2.1.49		-	
>>>DPCH ID	0		9.2.3.3	TDD only	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></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></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></maxnoo 			EACH	ignore
>>>RL-ID	M		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	-	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		-	
>>>HS-SICH ID	0		9.2.3.3ad	TDD only	YES	ignore
>RLS or ALL RLS				FDD only See Note 2	-	
>>RL Set Information		1 <maxnoo fRLSets></maxnoo 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		-	

Range bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started
	on.
maxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

Note 1: This is a simplified representation of the ASN.1: there are two different choice tags "RL" and "ALL RL" in the ASN.1, each having exactly the same structure.

Note 2: This is a simplified representation of the ASN.1: there are two different choice tags "RLS" and "ALL RLS" in the ASN.1, each having exactly the same structure.

9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	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></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></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	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		ı	
S-RNTI	M		9.2.1.53		YES	ignore
C-RNTI	0		9.2.1.14		YES	ignore
FACH Info for UE Selected		1			YES	ignore
S-CCPCH						
>FACH Flow Control Information	М		9.2.1.26C		YES	ignore
Transport Layer Address	0		9.2.1.62		YES	ignore
Binding Identity	0		9.2.1.3		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
C-ID	М		9.2.1.6		YES	ignore

9.1.36.2 TDD Message

IE/Group Name	Presence	Range	IE Type and 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	M		9.2.2.A		YES	ignore

9.1.39 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Cause	0		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
S-RNTI	0		9.2.1.53		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore

9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and 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></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
HS-DSCH MAC-d Flow Specific Information		0 <maxno ofMACdFl ows></maxno 			EACH	ignore
>HS-DSCH MAC-d Flow ID	M		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></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		-	
>DCH Rate Information		1 <maxno ofDCHs></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 ></maxnoof 		UTRAN only	_	
>>>CHOICE Neighbouring Cell Measurement Information					-	
>>>Neighbourin g FDD Cell Measurement Information				FDD only	-	
>>>>Neighbo uring FDD Cell Measurement Information	M		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	M		9.2.1.59		_	-
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE Common Measurement Object Type	0			Common Measuremen t Object Type that the measuremen t was initiated with.	YES	ignore
>Cell					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		1	
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	М		9.2.1.59		_	
Measurement ID	М		9.2.1.37		YES	ignore

9.1.48 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type	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	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		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	М		9.2.1.31C		YES	reject

9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	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		_	
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE Information	M				YES	ignore
Exchange Object Type						
>Cell					_	
>>Requested Data Value Information	М		9.2.1.48B		_	

9.1.53 INFORMATION EXCHANGE TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	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	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RNC-ID	M		9.2.1.50	Identity of the sending RNC	YES	reject
CHOICE Reset Indicator	M				YES	reject
>Context					_	
>>Context Information		1 <maxre setContext ></maxre 			EACH	reject
>>>CHOICE Context Type	M				_	
>>>SRNTI					_	
>>>>S-RNTI	М		9.2.1.53		_	
>>>DRNTI					_	
>>>>D-RNTI	М		9.2.1.24		_	
>All Contexts			NULL		_	
>Context Group					_	
>>Context Group Information		1 <maxre setContext Groups></maxre 			EACH	reject
>>>S-RNTI Group	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	M		9.2.1.59		_	
RNC-ID	M		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	М		9.2.1.59		_	
HS-DSCH FDD Update Information	0		9.2.2.19c		YES	ignore
RL Information		0 <max noofRLs ></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	М		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 Reference	Semantics Description
Priority Level	M		INTEGER(0. .15)	This IE indicates the priority of the request. Usage: Value "0" means "Spare"; It shall be treated as a logical error if received. Values between 1 and 14 are ordered in decreasing order of priority, '1' being the highest and '14' the lowest. Value "15" means "No Priority".
Pre-emption Capability	M		ENUMERAT ED(shall not trigger pre- emption, may trigger pre-emption)	
Pre-emption Vulnerability	M		ENUMERAT ED(not pre- emptable, pre- emptable)	

9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Allowed Queuing Time			INTEGER(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 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <n+1, except="" for="" n="2<sup">15-1 for which the range is extended to include all grater values of (a).</n+1,>

9.2.1.2C Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Antenna Co-location			ENUMERAT	
Indicator			ED(co-	
			located)	

9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID			OCTET STRING (14,)	If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2. The first octet of the UDP port field shall be included in the first octet of the Binding ID.

9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel. BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BLER			INTEGER(-	Step 0.1. (Range –6.30).
			630)	It is the Log10 of the BLER

9.2.1.4A Block STTD Indicator

Void.

9.2.1.4B Burst Mode Parameters

The Burst Mode Parameters IE provides all the relevant information in order to able IPDL in the Burst mode.

IE/Group name	Presence	Range	IE Type and 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			Description
>Radio Network Layer				
>Radio Network Layer >>Ratio Network Layer Cause	M		ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, Measurement not Supported For The Object, Combining Resources Not Available, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not Elapsed, Number of DL Codes Not Supported, Dedicated Transport Channel Type not Supported, UL Shared Channel Type not Supported, UL Shared Channel Type not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, CM not Supported, UL Spreading Factor not Supported, CM 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, RL Timing Adjustment Not Supported, Unknown RNTI)	
>Transport Layer			ORKHOWN RIVIT)	
>>Transport Layer Cause	М		ENUMERATED (Transport Resource Unavailable, Unspecified,)	
>Protocol	NA		ENLIMEDATED	
>>Protocol Cause	M		ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified, Abstract Syntax Error (Falsely Constructed Message),)	
>>Miscellaneous Cause	М		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 Common
not Supported	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 Supported	The concerned cell(s) do not support the Downlink Shared Channel Type
DPC Mode Change not Supported	The concerned cells do not support the DPC mode changes
Information Provision not	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	The control of the co
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 Supported	The concerned cen(s) do not support the requested number of OL codes
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not
Tower Level not supported	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
	elapsed
Reconfiguration not Allowed	The SRNC does currently not allow the requested reconfiguration
Requested Configuration not	The concerned cell(s) do not support the requested configuration i.e.
Supported	power levels, Transport Formats, physical channel parameters,
Requested Tx Diversity mode not	The concerned cell(s) do not support the requested transmit diversity
Supported	mode
RL Already Activated/ Allocated	The DRNS has already allocated an RL with the requested RL ID for this
	UE Context
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	М		ENUMERAT ED(North, South)	
>Degrees of Latitude	M		INTEGER(02 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
>Degrees of Longitude	М		INTEGER(-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

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 Uncertainty	М		9.2.1.30A	Ellipsoid point with uncertainty circle
>GA Ellipsoid point with uncertainty Ellipse				
>>GA Ellipsoid point with uncertainty Ellipse	М		9.2.1.30B	Ellipsoid point with uncertainty Ellipse
>GA Ellipsoid point with altitude				
>>GA Ellipsoid point with altitude	M		9.2.1.30C	Ellipsoid point with altitude
>GA Ellipsoid point with altitude and uncertainty Ellipsoid				
>>GA Ellipsoid point with altitude and uncertainty Ellipsoid	M		9.2.1.30D	Ellipsoid point with altitude and uncertainty Ellipsoid
>GA Ellipsoid Arc				
>>GA Ellipsoid Arc	M		9.2.1.30E	Ellipsoid Arc

9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. *Cell Capacity Class Value* IE is the value that classifies the cell capacity with regards to the other cells. *Cell Capacity Class Value* IE only indicates resources that are configured for traffic purposes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Cell Capacity Class Value	М		INTEGER(1100,)	Value 1 shall indicate the minimum uplink cell capacity, and 100 shall indicate the maximum uplink cell capacity. There should be linear relation between uplink cell capacity and Uplink Cell Capacity Class Value.
Downlink Cell Capacity Class Value	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	М			
>T _{UTRAN-GPS} Measurement Accuracy Class				
>>T _{UTRAN-GPS} Measurement Accuracy Class	M		T _{UTRAN-GPS} Accuracy Class 9 2 1 59B	

9.2.1.12B Common Measurement Object Type

Void.

9.2.1.12C Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and	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 _{UTRAN-GPS} Measurement Value Information				UTRAN only	-	
>>T _{UTRAN-GPS} Measurement Value Information	M		9.2.1.59D		_	
> SFN-SFN Measurement Value Information				UTRAN only	-	
>>SFN-SFN Measurement Value Information	M		9.2.1.52C		_	
>Load Value					_	
>>Load Value	M		9.2.1.33A		_	
>Transmitted Carrier Power Value				UTRAN only	_	
>>Transmitted Carrier Power Value	M		Transmitted Carrier Power 9.2.1.59A		_	
>Received Total Wide Band Power Value				UTRAN only	_	
>>Received Total Wide Band Power Value	М		Received Total Wide Band Power 9.2.2.35A		_	
>UL Timeslot ISCP Value				TDD Only	-	
>>UL Timeslot ISCP Value	M		UL Timeslot ISCP 9.2.3.13A		_	
>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	caused the error	-	
>Ddmode	М		ENUMERATED(FDD, TDD, Common)	Common = common to FDD and TDD. Common Ddmode is also applicable for lurg procedures listed in section 7.	-	
Triggering Message	0		ENUMERATED(i nitiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.	-	
Procedure Criticality	0		ENUMERATED(r eject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).	-	
Transaction ID	0		Transaction ID		-	
Information Element Criticality Diagnostics		0 <max noof errors></max 			-	
>IE Criticality	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	М		INTEGER(0655 35)	The IE ID of the not understood or missing IE as defined in the ASN.1 part of the specification.	-	
>Repetition Number	0		INTEGER(0255)	The Repetition Number IE gives In case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence In case of a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted	-	

				occurrences of the reported IE must have the same topdown 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	not u	MERATED(Inderstood, ing,)		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></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	Ω		9212A		YFS	ignore

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.1.17 Dedicated Measurement Object Type

Void.

9.2.1.18 Dedicated Measurement Type

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Type			ENUMERAT ED(SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time,, Rx Timing Deviation LCR, Angle Of Arrival LCR, HS-SICH Reception Quality)	RSCP and HS-SICH Receptions Quality are used by TDD only, Rx Timing Deviation is used by 3.84 TDD only, Rx Timing Deviation LCR is used by 1.28 TDD only, Round Trip Time, SIR Error are used by FDD only. Angle Of Arrival LCR is used by 1.28Mcps TDD only.

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	M		INTEGER(063)	According to mapping in ref. [23] and [24]	-	
>SIR Error Value				FDD Only	ı	
>>SIR Error Value	M		INTEGER(0125)	According to mapping in [23]	1	
>Transmitted Code Power Value					_	
>>Transmitted Code Power Value	M		INTEGER(0127)	According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used.	-	
>RSCP				TDD Only	_	
>>RSCP	M		INTEGER(0127)	According to mapping in ref. [24]	-	
>Rx Timing Deviation Value				3.84Mcps TDD Only	_	
>>Rx Timing Deviation	М		INTEGER(08191)	According to mapping in [24]	-	
>Round Trip Time				FDD Only	1	
>>Round Trip Time	M		INTEGER(032767)	According to mapping in [23]	1	
>Additional Dedicated Measurement Values					-	
>>Rx Timing Deviation Value LCR				1.28Mcps TDD Only	YES	reject
>>>Rx Timing Deviation LCR	M		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]	1	
>>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	М		INTEGER (020)	According to mapping in [24]	-	
>>>Total HS-SICH	М		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	M			
>>> Synchronised				
>>>> Activation CFN	M		CFN 9.2.1.7	
>>> Unsynchronised			NULL	
>> Initial DL TX Power	M		DL Power	
			9.2.1.21	
>> First RLS Indicator	0		9.2.2.16A	FDD Only
>> Propagation Delay	0		9.2.2.35	FDD Only
> Deactivate				
>> CHOICE Deactivation type	M			
>>> Synchronised				
>>>> Deactivation CFN	M		CFN 9.2.1.7	
>>> Unsynchronised			NULL	

9.2.1.19B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	М		INTEGER(0. .604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid
Status/Health	M		ENUMERAT ED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections
Satellite DGPS Corrections Information		1 <maxnosat></maxnosat>		
>SatID	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- σ) 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	M		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	Semantics Description
			Reference	
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 Reference	Semantics Description
DRX Cycle Length Coefficient			INTEGER (39)	Refers to 'k' in the formula as specified in ref. [15], Discontinuous Reception.

9.2.1.26A DSCH ID

Void.

9.2.1.26Aa DSCH Initial Window Size

Void.

9.2.1.26B DSCH Flow Control Information

Void.

9.2.1.26Ba DSCH-RNTI

Void.

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 Reference	Semantics Description
Extended GSM Cell Individual			INTEGER (-	Unit in dB. Step size is 1 dB.
Offset			5011	·
			1150)	

9.2.1.26C FACH Flow Control Information

The FACH Flow Control Information IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FACH Flow Control Information		116			_	
>FACH Scheduling Priority	М		Scheduling Priority Indicator 9.2.1.51A		_	
>MAC-c/sh SDU Length		1 <maxnb MAC- c/shSDUL ength></maxnb 			-	
>>MAC-c/sh SDU Length	M		9.2.1.34		_	
>FACH Initial Window Size	M		9.2.1.27		_	

Range bound	Explanation
maxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

IE/Group Name	Presence	Range	IE Type and 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, [TDD - 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 (0255)	Frames

9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Code	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1)

9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Ellipse	M		9.2.1.68A	
Confidence	М		INTEGER(0127)	

9.2.1.30C GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	

9.2.1.30D GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	
Uncertainty Ellipse	M		9.2.1.68A	
Uncertainty Altitude	M		INTEGER(
			0127)	
Confidence	M		INTEGER(
			0127)	

9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Geographical Coordinates	M		9.2.1.30F	
Inner radius	М		INTEGER(02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is 5N≤ r <5(N+1), except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -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 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees Of Longitude	M		INTEGER(-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

9.2.1.30Fa GERAN Cell Capability

The GERAN Cell Capability IE is used to transfer the capabilities of a certain GERAN cell via the Iur interface.

IE/Group Name	Presence	Range	IE type and 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	M		OCTET STRING	Contents defined in [38]

9.2.1.30G GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
WN _a	М		BIT STRING(8)	
Satellite Almanac Information	M	1 <maxno OfSatAlma nac></maxno 		See Note 1.
>DataID	М		INTEGER (03)	
>SatID	М		SAT ID 9.2.1.50A	Satellite ID
>e	М		BIT STRING(16)	
>t _{oa}	М		BIT STRING(8)	
>81	М		BIT STRING(16)	
>OMEGADOT	М		BIT STRING(16)	
>SV Health	М		BIT STRING(8)	
>A ^{1/2}	М		BIT STRING(24)	
>OMEGA ₀	М		BIT STRING(24)	
>M ₀	М		BIT STRING(24)	
>0	М		BIT STRING(24)	
>af ₀	М		BIT STRING(11)	
>af ₁	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	
α_0	M		BIT	
			STRING(8)	
α_1	M		BIT	
			STRING(8)	
α_2	M		BIT	
			STRING(8)	
α ₃	M		BIT	
			STRING(8)	
β_0	M		BIT	
			STRING(8)	
β ₁	M		BIT	
•			STRING(8)	
β_2	M		BIT	
			STRING(8)	
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	М		SAT ID 9.2.1.50A	Satellite ID of the satellite from which the information is obtained
>TLM Message	М		BIT STRING(14)	
>TIm Revd (C)	М		BIT STRING(2)	
>HO-Word	М		BIT STRING(22)	
>WN	М		BIT STRING(10)	
>C/A or P on L2	М		BIT STRING(2)	
>User Range Accuracy	M		BIT	
Index >SV Health	M		STRING(4) BIT	
>IODC	M		STRING(6)	
			STRING(10)	
>L2 P Data Flag	М		BIT STRING(1)	
>SF 1 Reserved	М		BIT STRING(87)	
>T _{GD}	М		BIT STRING(8)	
>t _{oc}	М		BIT STRING(16)	
>af ₂	М		BIT STRING(8)	
>af ₁	M		BIT	
>af ₀	М		STRING(16) BIT	
>C _{rs}	M		STRING(22) BIT	
>∆n	M		STRING(16) BIT	
>M ₀	M		STRING(16) BIT	
>C _{uc}	M		STRING(32) BIT	
>e	M		STRING(16) BIT	
>C _{us}	M		STRING(32) BIT	
>(A) ^{1/2}	M		STRING(16) BIT	
>t _{oe}	M		STRING(32) BIT	
>Fit Interval Flag	M		STRING(16) BIT	
>AODO	M		STRING(1) BIT	
>C _{ic}	M		STRING(5) BIT	
>OMEGA ₀	M		STRING(16) BIT	
			STRING(32)	
>C _{is}	M		BIT STRING(16)	
>i ₀	M		BIT STRING(32)	
>C _{rc}	M		BIT	

		STRING(16)
>ω	M	BIT
		STRING(32)
>OMEGAdot	M	BIT
		STRING(24)
>ldot	M	BIT
		STRING(14)
>Spare/zero fill	M	BIT
		STRING(20)

Range Bound	Explanation
maxNoSat	Maximum number of satellites for which information can be
	provided

9.2.1.30J GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Bad Satellites Presence	M			
>Bad Satellites				
>>Satellite Information		1 <maxn oSat></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.

Ī	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	Semantics Description
			Reference	
A ₁	M		BIT	
			STRING(24)	
A ₀	М		BIT	
			STRING(32)	
t _{ot}	М		BIT	
			STRING(8)	
Δt_{LS}	М		BIT	
			STRING(8)	
WNt	М		BIT	
			STRING(8)	
WN _{LSF}	М		BIT	
			STRING(8)	
DN	М		BIT	
			STRING(8)	
Δt_{LSF}	М		BIT	
			STRING(8)	

9.2.1.30M Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Guaranteed UL Rate	0		INTEGER(1. .maxTFcount	"1": TFI 0, "2": TFI 1, "3": TFI 2,
Guaranteed DL Rate	0		INTEGER(1. .maxTFcount	"1": TFI 0, "2": TFI 1, "3": TFI 2,

9.2.1.30N HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
HCS Prio			INTEGER (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></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></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		9.2.1.34 _{Aa}	
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 Reference	Semantics Description
HS-DSCH MAC-d Flow Specific Information		1 <maxno ofMACdFl ows></maxno 		
>HS-DSCH MAC-d Flow ID	М		9.2.1.300	
>Allocation/Retention Priority	М		9.2.1.1	
>Traffic Class	M		9.2.1.58A	
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishment with ALCAP.
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishment with ALCAP.
Priority Queue Information		1 <maxno ofPrioQue ues></maxno 		
>Priority Queue ID	M		9.2.1.45A	
>Associated HS-DSCH MAC-d Flow	М		HS-DSCH MAC-d Flow ID 9.2.1.30O	The HS-DSCH MAC-d Flow ID shall be one of the flow IDs 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	
Indicator				
>T1	M		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 Index		1 <maxno ofMACdP DUindexes ></maxno 		
>>SID	М		9.2.1.52D	
>>MAC-d PDU Size	М		9.2.1.34A	
>RLC Mode	М		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></maxno 		
>HS-DSCH MAC-d Flow ID	M		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.

		Range	IE Type and Reference	Semantics Description	
HS-DSCH MAC-d Flow		0 <maxnoofmac< th=""><th></th><th></th></maxnoofmac<>			
Specific Information		dFlows>			
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		
>Allocation/Retention	0		9.2.1.1		
Priority	M		0.04.04		
>Transport Bearer Request Indicator	IVI		9.2.1.61		
>Traffic Class	0		9.2.1.58A		
>Binding ID	0		9.2.1.3	Shall be ignored if bearer	
2 2 1 1 dailing 12			0.2.1.0	establishment with ALCAP.	
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer	
				establishment with ALCAP.	
Priority Queue Information		0 <maxnoofprioqueues></maxnoofprioqueues>			
>CHOICE Priority Queue	М				
>>Add Priority Queue					
>>>Priority Queue ID	М		9.2.1.45A		
>>>Associated HS-DSCH	M		HS-DSCH	Shall only refer to a HS-	
MAC-d Flow			MAC-d Flow	DSCH MAC-d flow already	
			ID 9.2.1.30O	existing in the old	
				configuration.	
				Multiple Priority Queues can be associated with the same	
				HS-DSCH MAC-d Flow ID.	
>>>Scheduling Priority	М		9.2.1.51A	THE BEST WING OF HOW ID.	
Indicator			0.2.1.017		
>>>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	0		9.2.1.34Aa		
Bit Rate					
>>>MAC-d PDU Size Index		1 <maxnoofmac dPDUindexes></maxnoofmac 			
>>>SID	М	ur Dollidexes>	9.2.1.52D		
>>>MAC-d PDU Size	M		9.2.1.34A		
>>>RLC Mode	M		9.2.1.48D		
>>Modify Priority Queue					
>>>Priority Queue ID	М		9.2.1.45A	Shall only refer to a Priority	
·				Queue already existing in the old configuration.	
>>>Scheduling Priority	0		9.2.1.51A		
Indicator					
>>>T1	0		9.2.1.54A		
>>>Discard Timer	0		9.2.1.19C		
>>>MAC-hs Window Size	0		9.2.1.34C 9.2.1.34Aa		
>>>MAC-hs Guaranteed	0		1 9.7.1.34Aa		
			0.20		
Bit Rate		0 <maxnoofmac< td=""><td>0.21110 1110</td><td></td></maxnoofmac<>	0.21110 1110		
Bit Rate >>>MAC-d PDU Size		0 <maxnoofmac dPDUindexes></maxnoofmac 	0.2		
Bit Rate	M	0 <maxnoofmac dPDUindexes></maxnoofmac 			
Bit Rate >>>MAC-d PDU Size Index	M		9.2.1.52D 9.2.1.34A		
Bit Rate >>>MAC-d PDU Size Index >>>>SID			9.2.1.52D		
Bit Rate >>>MAC-d PDU Size Index >>>>SID >>>>MAC-d PDU Size			9.2.1.52D	Shall only refer to a Priority	
Bit Rate >>>MAC-d PDU Size Index >>>>SID >>>>MAC-d PDU Size >>>>Delete Priority Queue	M		9.2.1.52D 9.2.1.34A	Queue already existing in	
Bit Rate >>>MAC-d PDU Size Index >>>SID >>>>MAC-d PDU Size >>>Priority Queue >>>Priority Queue ID	M		9.2.1.52D 9.2.1.34A 9.2.1.45A		
Bit Rate >>>MAC-d PDU Size Index >>>SID >>>>MAC-d PDU Size >>>Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size	M		9.2.1.52D 9.2.1.34A	Queue already existing in	
Bit Rate >>>MAC-d PDU Size Index >>>SID >>>MAC-d PDU Size >>> MAC-d PDU Size >>Delete Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size for RLC-UM	M		9.2.1.52D 9.2.1.34A 9.2.1.45A 9.2.1.34Ab	Queue already existing in the old configuration.	
Bit Rate >>>MAC-d PDU Size Index >>>SID >>>MAC-d PDU Size >>>Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size for RLC-UM CQI Feedback Cycle k	M M		9.2.1.52D 9.2.1.34A 9.2.1.45A 9.2.1.34Ab 9.2.2.24a	Queue already existing in the old configuration. For FDD only	
Bit Rate >>>MAC-d PDU Size Index >>>SID >>>MAC-d PDU Size Size >>>Delete Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size for RLC-UM CQI Feedback Cycle k CQI Repetition Factor	M		9.2.1.52D 9.2.1.34A 9.2.1.45A 9.2.1.34Ab 9.2.2.24a 9.2.2.24c	Queue already existing in the old configuration. For FDD only For FDD only	
Bit Rate >>>MAC-d PDU Size Index >>>>SID >>>>MAC-d PDU Size Size >>>Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size for RLC-UM CQI Feedback Cycle k CQI Repetition Factor ACK-NACK Repetition Factor	M		9.2.1.52D 9.2.1.34A 9.2.1.45A 9.2.1.34Ab 9.2.2.24a 9.2.2.24c 9.2.2.2	Queue already existing in the old configuration. For FDD only For FDD only For FDD only	
Bit Rate >>>MAC-d PDU Size Index >>>SID >>>MAC-d PDU Size Size >>Delete Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size for RLC-UM CQI Feedback Cycle k CQI Repetition Factor ACK-NACK Repetition Factor CQI Power Offset	M		9.2.1.52D 9.2.1.34A 9.2.1.45A 9.2.1.34Ab 9.2.2.24a 9.2.2.24c 9.2.2.a 9.2.2.24b	Queue already existing in the old configuration. For FDD only For FDD only For FDD only For FDD only	
Bit Rate >>>MAC-d PDU Size Index >>>>SID >>>>MAC-d PDU Size Size >>>Priority Queue >>>Priority Queue ID MAC-hs Reordering Buffer Size for RLC-UM CQI Feedback Cycle k CQI Repetition Factor ACK-NACK Repetition Factor	M		9.2.1.52D 9.2.1.34A 9.2.1.45A 9.2.1.34Ab 9.2.2.24a 9.2.2.24c 9.2.2.2	Queue already existing in the old configuration. For FDD only For FDD only 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 Reference	Semantics Description
IMSI			OCTET STRING (SIZE(38))	-Decimal digits coded in BCD -'1111' used as filler -bit 4 to 1 of octet n is encoding digit 2n-1 -bit 8 to 5 of octet n is encoding digit 2n

9.2.1.31A Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Exchange ID	М		INTEGER(0 2^20-1)	

9.2.1.31B Information Exchange Object Type

Void.

9.2.1.31C Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Report Characteristics Type	M			
>On Demand			NULL	
>Periodic				
>>CHOICE Information Report Periodicity Scale	M			The frequency with which the Node B shall send information reports.
>>>minute				
>>>Report Periodicity Value	М		INTEGER (160,)	
>>>hour				
>>>Report Periodicity Value	М		INTEGER (124,)	
>On Modification				
>>Information Threshold	0	•	9.2.1.31D	

9.2.1.31D Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Information Type Item	М				-	
>DGPS Corrections					-	
>>PRC Deviation	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></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	M		9.2.2.21B		-	
>IPDL TDD Parameters				Applicable to 3.84Mcps TDD only	1	
>>IPDL TDD parameters	M		9.2.3.4B			
>Additional IPDL Parameters					-	
>>IPDL TDD Parameters LCR				Applicable to 1.28Mcps TDD only	-	
>>>IPDL TDD parameters LCR	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	М		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	М		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, [TDD - 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 Rate			INTEGER (02^24-1,)	Unit: bit/s

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 Reference	Semantics Description
MAC-hs Reset Indicator			ENUMERATED	
			(MAC-hs	
			Not Reset)	

9.2.1.34C MAC-hs Window Size

The MAC-hs Window Size IE is used for MAC-hs PDU retransmission as defined in [41].

IE/Group Name	Presence	Range	IE type and	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 Reference	Semantics Description
Measurement Hysteresis Time			INTEGER (16000,)	Unit: ms Range: 1060000 ms Step: 10 ms

9.2.1.37 Measurement ID

The Measurement ID uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context.

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

9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Measurement Increase/Decrease Threshold	М		THE STATE OF THE S	333р	-	Ginidanis
>SIR					-	
>>SIR	М		INTEGER(062)	0: 0 dB 1: 0.5 dB 2: 1 dB	-	
0.5.5				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 >>RSCP	M		INTEGER(0126)	TDD Only 0: 0 dB 1: 0.5 dB 2: 1 dB	-	
				126: 63 dB		
>Round Trip Time				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	_	
>Additional Measurement Thresholds >>Load					_	
>>>Load >>>Load	М		INTEGER(0100)	Units are the same as for the Uplink Load Value IE and Downlink Load Value IE.	-	
>>Transmitted					-	
Carrier Power >>>Transmitted	l NA		INTECED/O 100	According to manning	YES	roiset
Carrier Power	М		INTEGER(0100)	According to mapping in [23] and [24].		reject
>>Received Total Wide Band Power					-	
>>>Received Total Wide Band Power	М		INTEGER(0620)	0: 0dB 1: 0.1dB 2: 0.2dB 620: 62dB	YES	reject
>>UL Timeslot				TDD Only	-	
ISCP >>>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				-	
>>>NRT Load Information	М	INTEGER(03)		YES	reject

9.2.1.39 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

IE/Group Name	Reference		Semantics Description	Criticality	Assigned Criticality	
CHOICE Measurement Threshold				•	-	
>SIR					-	
>>SIR	М		INTEGER(063)	According to mapping in ref. [23] and [24].	-	
>SIR Error				FDD Only	-	
>>SIR Error	М		INTEGER(0125)	According to mapping in [23]	-	
>Transmitted Carrier Power					-	
>>Transmitted Code Power	М		INTEGER(0127)	According to mapping in ref. [23] and [24].	-	
>RSCP				TDD Only	-	
>>RSCP	М		INTEGER(0127)	According to mapping in ref. [24]	-	
>Rx Timing Deviation				Applicable to 3.84Mcps TDD Only	-	
>>Rx Timing Deviation	М		INTEGER(0819 1)	According to mapping in [24]	-	
>Round Trip Time				FDD Only	-	
>>Round Trip Time	М		INTEGER(0327 67)	According to mapping in [23]	-	
> T _{UTRAN-GPS} Measurement Threshold Information					-	
>>T _{UTRAN-GPS} Measurement Threshold Information	M		9.2.1.59C		YES	reject
> SFN-SFN Measurement Threshold Information					-	
>>SFN-SFN Measurement Threshold Information	M		9.2.1.52B		YES	reject
>Load					-	
>>Load	M		INTEGER(0100)	0 is the minimum indicated load, and 100 is the maximum indicated load.	YES	reject
>Transmitted Carrier Power					-	
>>Transmitted Carrier Power	М		INTEGER(0100)	According to mapping in [23] and [24].	YES	reject
>Received Total Wide Band Power					-	
>>Received Total Wide Band Power	M		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	М		INTEGER(0100)		YES	reject
>NRT Load Information					-	
>>NRT Load Information	М		INTEGER(03)		YES	reject
>Rx Timing				Applicable to		

	Deviation LCR			1.28Mcps TDD Only		
	>>Rx Timing	M	INTEGER(0511	According to mapping	YES	reject
	Deviation LCR)	in [24]		
Ī	>HS-SICH			Applicable to TDD	_	
	reception quality			Only		
Ī	>>HS-SICH	M	INTEGER (020)	According to mapping	YES	reject
	reception			in [24]		
	quality					

9.2.1.39A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occurred error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message structure		1 <maxnoo flevels></maxnoo 		The first repetition of the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occurred error of the message.	-	
>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	
				"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, TDD, Common,)	Common = common to FDD and TDD.	
Type of Message	М		ENUMERATED(Initiati ng Message, Successful Outcome, Unsuccessful Outcome, Outcome)		

9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Multiple URAs Indicator			ENUMERAT	
			ED(Multiple	
			URA s exist,	
			Single URA	
			Exists)	

9.2.1.41A Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring UMTS Cell Information		1 <maxnoof neighbourin gRNCs></maxnoof 			EACH	ignore
>RNC-ID	M		9.2.1.50		_	
>CN PS Domain Identifier	0		9.2.1.12		_	
>CN CS Domain Identifier	0		9.2.1.11		_	
>Neighbouring FDD Cell Information	0		9.2.1.41B		_	
>Neighbouring TDD Cell Information	0		9.2.1.41D		-	
>Neighbouring TDD Cell Information LCR	0		9.2.1.72		YES	ignore

Range bound	Explanation
maxnoofneighbouringRNCs	Maximum number of neighbouring RNCs.

9.2.1.41B Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring FDD Cell Information		1 <max noofFDD neighbou rs></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		_	
> Not Used	0		NULL		_	
>Restriction State Indicator	0		9.2.1.48C		YES	ignore
>DPC Mode Change Support Indicator	0		9.2.2.56		YES	ignore
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.2C		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container FDD	0		9.2.2.D		YES	ignore
>SNA Information	0		9.2.1.52Ca		YES	ignore

Range bound	Explanation
maxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.

9.2.1.41C Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for all GSM Cells that are a neighbouring cell to a cell in the DRNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Neighbouring GSM Cell Information		1 <max noofGS Mneighb ours></max 			GLOBAL	ignore
>CGI		1		Cell Global Identity as defined in ref. [1].	_	
>>LAI >>>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></maxnoo 			_	
>C-ID	M		9.2.1.6		_	
>UARFCN	М		9.2.1.66	Corresponds to Nt in ref. [7]	_	
>Frame Offset	0		9.2.1.30		_	
>Cell Parameter ID	M		9.2.1.8		_	
>Sync Case	M		9.2.1.54		_	
>Time Slot For SCH	C-Case1		Time Slot 9.2.1.56		_	
>SCH Time Slot	C-Case2		9.2.1.51		_	
>SCTD Indicator	M		9.2.1.78		_	
>Cell Individual Offset	0		9.2.1.7		_	
>DPCH Constant Value	0		9.2.1.23		_	
>PCCPCH Power	0		9.2.1.43		_	
>Restriction State Indicator	0		9.2.1.48C		YES	ignore
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.2C		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container TDD	0		9.2.3.1a		YES	ignore
> SNA Information	0		9.2.1.52Ca		YES	ignore

Condition	Explanation
Case1	The IE shall be present if the Sync Case IE is set to "Case1".
Case2	The IE shall be present if the Sync Case IE is set to "Case2".

Range bound	Explanation
maxnoofTDDneighbours	Maximum number of neighbouring 3.84Mcps TDD cell for one cell.

9.2.1.41Dd Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Cell Identifier	М		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.1.8	
Time Slot LCR	0		9.2.3.12a	
Midamble shift LCR	0		9.2.3.4C	

9.2.1.41E Paging Cause

Cause for a CN originated page.

IE/Group Name	Presence	Range	IE Type and 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
			reference	
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	Semantics Description
			Reference	
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	M		Measureme nt Threshold 9.2.1.39		-	
>>Measurement Threshold 2	0		Measureme nt Threshold 9.2.1.39		-	
>>Measurement Hysteresis Time	0		9.2.1.36A	The hysteresis time in ms	-	
>>Report Periodicity	0		9.2.1.48a	The periodicity with which the DRNS shall send measuremen t reports.	-	
>Additional Report Characteristics					_	
>>On Modification					_	
>>> On 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	М			
Scale				
>millisecond				
>>Report Periodicity Value	М		INTEGER (16000,)	Unit: ms Range: 1060000 ms Step: 10 ms
>minute				
>>Report Periodicity Value	M		INTEGER (160,)	Unit: min Range: 160 min Step: 1 min

9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerned the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
UTRAN Access Point Position	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				ı	
>Information Available					_	
>>Requested Data Value	М		9.2.1.48A		I	
>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></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(0.	
			.6)	

9.2.1.51A Scheduling Priority Indicator

Indicates the relative priority of the FACH, [TDD - DSCH, USCH] or HS-DSCH data frame. Used by the DRNC when scheduling FACH, [TDD - 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, [TDD - DSCH, USCH] or HS- DSCH data frame: 0=Lowest Priority 15=Highest Priority

9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
SAC	М		OCTET STRING (2)	

9.2.1.52A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN			INTEGER(0.	
			.4095)	

9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN-SFN Change Limit	0		INTEGER(1256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted SFN-SFN Deviation Limit	0		INTEGER(1. .256)	Deviation the Predicted SFN- SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		1 <maxnoofmeasn Cell></maxnoofmeasn 		
>UTRAN Cell Identifier	M		9.2.1.71	
>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(0. .100)	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></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 reference	Semantics description
T1			ENUMERAT ED (10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 200, 300, 400,)	Unit: ms Node B may use this value to stop the re-transmission of the corresponding MAC-hs PDU.

9.2.1.55 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [12].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Presence			ENUMERATE	
			D(Present,	
			not present)	

9.2.1.56 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot			INTEGER	
			(014)	

9.2.1.56A 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

To AWE is the window endpoint. DL data frames are expected to be received before this window endpoint. To AWE is defined with a positive value relative Latest Time of Arrival (LToA). A data frame arriving after To AWE 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_{UTRAN-GPS} 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_{UTRAN-GPS} 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 _{UTRAN-GPS} Change Limit	0		INTEGER(1256)	Change of T _{UTRAN-GPS} value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted T _{UTRAN-GPS} Deviation Limit	0		INTEGER(1256)	Deviation of the Predicted T _{UTRAN-GPS} from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.59D T_{UTRAN-GPS} Measurement Value Information

The $T_{UTRAN-GPS}$ Measurement Value Information IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T _{UTRAN-GPS}		1		Indicates the UTRAN GPS Timing of Cell Frames for UE Positioning. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	М		INTEGER (016383)	Most Significant Part
>LS	M		INTEGER (04294967 295)	Least Significant Part
T _{UTRAN-GPS} Quality	0		INTEGER(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 _{UTRAN-GPS} Drift Rate	M		INTEGER(- 5050)	Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
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 μ = $E[x]$ is the expectation value of x.

9.2.1.60 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer ID			INTEGER(04095)	

9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
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.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE TFCS Values	M			
>Always Used				This choice is always made.
>>TFCS		1 <maxnooftfcs ></maxnooftfcs 		The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.]
>>>CTFC	M		9.2.1.14A	
>>>CHOICE Gain Factors	C- PhysChan			
>>>Signalled Gain Factors				
>>>>Gain Factor βc	М		INTEGER(015)	[FDD - For UL DPCCH or control part of PRACH ref. [21].] [TDD - β for UL DPCH mapping in accordance to [13].]
>>>>Gain Factor β _D	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	M		INTEGER(0 15)	Indicates the reference TFC to be used to calculate the gain factors for this TFC
>Not Used			NULL	This choice shall never be made by the SRNC and the DRNC shall consider the procedure as failed if it is received.

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.

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	M			
>>TDD				
>>>Transmission Time Interval Information	C- TTIdynamic	1 <maxttlcount></maxttlcount>		
>>>Transmission Time Interval	M		ENUMERAT ED(10, 20, 40, 80,)	Unit: msec
Semi-static Transport Format Information		1		
>Transmission Time Interval	M		ENUMERAT ED (10, 20, 40, 80, dynamic,)	Unit: msec Value "dynamic" for TDD only. For FDD DCH, the value "80" is applicable only when DL DPCH Slot Format IE indicates a slot format with SF=512.
>Type of Channel Coding	М		ENUMERAT ED (No codingTDD, Convolutiona I, Turbo,)	[FDD - The value "No codingTDD" shall be treated as logical error if received]
>Coding Rate	C – Coding		ENUMERAT ED (1/2, 1/3,)	
>Rate Matching Attribute	М		INTEGER (1maxRM)	
>CRC size	М		ENUMERAT ED (0, 8, 12, 16, 24,)	
>CHOICE Mode >>TDD	М			
>>>2 nd Interleaving Mode	М		ENUMERAT ED(Frame related, Timeslot related,)	

Condition	Explanation
Blocks	The IE shall be present if the Number of Transport Blocks IE is set
	to a value greater than 0.
Coding	The IE shall be present if Type of Channel Coding IE is set to
	"Convolutional" or "Turbo".
TTIdynamic	The IE shall be present if the <i>Transmission Time Interval</i> IE in the
	Semi-static Transport Format Information IE is set to "dynamic".

Range bound	Explanation
maxTFcount	The maximum number of different transport formats that can be
	included in the Transport format set for one transport channel.
maxRM	The maximum number that could be set as rate matching attribute
	for a transport channel.
maxTTlcount	The amount of different TTI that are possible for that transport
	format is.

9.2.1.65 TrCH Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TrOLL Course Chatistics				"Crassb" Ctatistics of the
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(016383,)	Corresponds to: 0.0Hz 3276.6MHz
				see ref. [6] and ref. [7].

9.2.1.67 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL FP Mode			ENUMERAT	
			ED(Normal,	
			Silent,)	

9.2.1.68 UL Interference Level

Void

9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uncertainty semi-major	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1)
Uncertainty semi-minor	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1)
Orientation of major axis	M		INTEGER(0179)	The relation between the IE value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1). The values 90179 shall not be used.

9.2.1.68B Unidirectional DCH Indicator

The Unidirectional DCH Indicator IE indicates that the DCH is unidirectional.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Unidirectional DCH Indicator			ENUMERATED	Downlink DCH only shall only
			(Downlink DCH only,	be used by TDD.
			Uplink DCH only)	-

9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink SIR			INTEGER (-	Value = Uplink SIR/10
			82173)	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	М		INTEGER(02 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees of Longitude	М		INTEGER(-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

9.2.1.70B URA Information

The URA Information IE contains URA Information for one cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
URA ID	M		9.2.1.70	
Multiple URAs Indicator	M		9.2.1.41	
RNCs with Cells in the Accessed URA		0 <maxrncinura- 1></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	М		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></maxno 			ı	
>C-ID	M		9.2.1.6		-	
>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	1	
>Frame Offset	0		9.2.1.30		ı	
>Cell Parameter ID	M		9.2.1.8		ı	
>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	Semantics Description
			Reference	
Choice Permanent NAS UE				
Identity				
>IMSI				
>>IMSI	М		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 dir	ection	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	М		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	М		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	Semantics Description
			Reference	
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	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 >)</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 (1 256)	Unit: Frames

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: Reserved. The second bit: Delayed Activation Support Indicator. The third bit: HS-DSCH Support Indicator. The fourth bit: Reserved. 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. Note that Reserved bits are not considered as a spare bit. They shall however 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

Void.

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	Semantics Description
			Reference	
Closed Loop Timing Adjustment			ENUMERAT	According to [10] subclause
Mode			ED(Offset1,	7.1:
			Offset2,)	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	M		9.2.1.67		_	
>ToAWS	M		9.2.1.58		_	
>ToAWE	М		9.2.1.57		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>TrCH Source Statistics Descriptor	М		9.2.1.65		_	
>>Transport Format Set	М		9.2.1.64	For the UL.	_	
>>Transport Format Set	М		9.2.1.64	For the DL.	_	
>>BLER	М		9.2.1.4	For the UL.	_	
>>BLER	M		9.2.1.4	For the DL.	_	
>>Allocation/Retention Priority	М		9.2.1.1		_	
>>Frame Handling Priority	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	Semantics Description
			Reference	
Diversity Mode			ENUMERAT	The Diversity Mode IE shall
			ED(None,	never be set to "Not Used". If
			STTD,	received it shall be rejected.
			Closed loop	-
			mode 1, Not	
			Used,)	

9.2.2.9 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Slot Format			INTEGER (016,)	

9.2.2.9A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required. It also indicates whether the timing adjustment shall consist of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Timing Adjustment			ENUMERAT ED(timing	The size of the timing adjustment is 256 chips.
			advance, timing delay)	

9.2.2.10 DL Power

Void

9.2.2.10A DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Power Adjustment Type	М		9.2.2.28		_	
DL Reference Power	C-Common		DL power	Power on	_	
			9.2.1.21A	DPCH		
DL Reference Power	C-Individual	1 <maxnoof< td=""><td></td><td></td><td>_</td><td></td></maxnoof<>			_	
Information		RLs>				
>RL ID	M		9.2.1.49		_	
>DL Reference Power	M		DL power	Power on	_	
			9.2.1.21A	DPCH		
Max Adjustment Step	C-		9.2.2.23		_	
	CommonOrIn					
	dividual					
Adjustment Period	C-		9.2.2.B		_	
	CommonOrIn					
	dividual					
Adjustment Ratio	C-		9.2.2.C		_	
	CommonOrIn					
	dividual					

Condition	Explanation
Common	The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common".
Individual	The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Individual".
CommonOrIndividual	The IE shall be present if the <i>Power Adjustment Type</i> IE is set to "Common" or "Individual".

Range Bound	Explanation
maxnoofRLs	Maximum number of Radio Links for a UE.

9.2.2.10B DL Power Balancing Activation Indicator

The DL Power Balancing Activation Indicator IE indicates that the power balancing is activated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing			ENUMERATED(DL	
Activation Indicator			Power Balancing	
			Activated).	

9.2.2.10C DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Common DL Reference	0		DL power	Power on	_	
Power			9.2.1.21A	DPCH		
Individual DL Reference		0 <maxnoof< td=""><td></td><td></td><td>_</td><td></td></maxnoof<>			_	
Power Information		RLs>				
>RL ID	M		9.2.1.49		_	
>DL Reference Power	M		DL power	Power on	_	
			9.2.1.21A	DPCH		

Range bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE.

9.2.2.10D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power Balancing			ENUMERATED(DL	
Updated Indicator			Power Balancing	
			Updated).	

9.2.2.11 DL Scrambling Code

DL Scrambling code to be used by the RL. One cell may have multiple DL Scrambling codes available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code			INTEGER (015)	0= Primary scrambling code of the cell 115= Secondary scrambling code

9.2.2.12 Downlink Frame Type

Void

9.2.2.12A DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode			ENUMERAT TED (Mode0, Mode1,)	Mode0: The DRNS shall estimate the UE transmitted TPC command and update the DL power in every slot Mode1: The DRNS shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

9.2.2.13 DRAC Control

This IE indicates whether the DCH is control by DRAC or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DRAC Control			ENUMERAT ED (Requested, Not- Requested)	Requested means that DCH is controlled by DRAC

9.2.2.13A DSCH FDD Information

Void.

9.2.2.13B DSCH FDD Information Response

Void.

9.2.2.13Bb DSCH-RNTI

Void.

9.2.2.13C FDD DCHs To Modify

The FDD DCHs To Modify IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD DCHs To Modify		1 <maxno ofDCHs></maxno 			_	
>UL FP Mode	0		9.2.1.67		_	
>ToAWS	0		9.2.1.58		_	
>ToAWE	0		9.2.1.57		_	
>Transport Bearer Request Indicator	M		9.2.1.61		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			ı	
>>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		ı	
>>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

Void.

9.2.2.13E Enhanced DSCH PC Counter

Void.

9.2.2.13F Enhanced DSCH PC Indicator

Void.

9.2.2.13G Enhanced DSCH PC Wnd

Void.

9.2.2.13H Enhanced DSCH Power Offset

Void.

9.2.2.13I Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced Primary CPICH Ec/No			INTEGER(0. .49)	According to the mapping of the Primary CPICH Ec/Io UE measurement defined in ref. [23] and [24]

9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Channelisation Code Number			INTEGER(0. . 511)	According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1

9.2.2.14A FDD DL Code Information

The FDD DL Code Information IE provides FDD DL Code information for all DPCHs of one Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
FDD DL Code Information		1 <maxnoof DLCodes</maxnoof 			1	
>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		1	

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 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 Reference	Semantics Description
FDD TPC Downlink Step			ENUMERAT	
Size			ED(0.5, 1,	
			1.5, 2,)	

9.2.2.16A First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
First RLS Indicator			ENUMERAT	
			ED(first RLS,	
			not first RLS)	

9.2.2.17 Gap Position Mode

Void.

9.2.2.18 Gap Period (TGP)

Void.

9.2.2.19 Gap Starting Slot Number (SN)

Void

9.2.2.19a HS-DSCH FDD Information

The HS-DSCH FDD Information IE 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	М		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	
CQI Feedback Cycle k	M		9.2.2.24a	
CQI Repetition Factor	C- CQICyclek		9.2.2.24c	
ACK-NACK Repetition Factor	М		9.2.2.a	
CQI Power Offset	M		9.2.2.24b	
ACK Power Offset	M		9.2.2.b	
NACK Power Offset	M		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 ></maxnoof 	11010101100	
>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></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	M		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></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	M		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

Void.

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 ED (0, 2, 4, 8, 10, 20, 40, 80, 160,)	Unit ms

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 (08)	According to mapping in ref. [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	Semantics Description
			Reference	
Min UL Channelisation Code			ENUMERAT	
Length			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 (08,)	According to mapping in ref. [21] subclause 4.2.1.

9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number of DL			INTEGER(1.	
Channelisation Codes			.8)	

9.2.2.27 Pattern Duration (PD)

Void

9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCP Preamble			INTEGER(0.	In number of frames.
			.7,)	

9.2.2.27A PDSCH Code Mapping

Void.

9.2.2.27B Phase Reference Update Indicator

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

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

9.2.2.28 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
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			INTEGER(0. .24)	Unit dB, Step 0.25 dB, range 0-6 dB

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	Semantics Description
			Reference	
Primary CPICH Ec/No			INTEGER(-	Unit dB, step 1 dB
			30+30)	The value range is typically
				within the range of -24 dB to 0
				dB according to the CPICH
				Ec/Io UE measurement
				defined in ref. [23].

9.2.2.32A Primary CPICH Usage For Channel Estimation

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

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

9.2.2.33 Propagation Delay (PD)

Propagation delay is the one-way propagation delay of the radio signal from the UE to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Propagation Delay				Unit: Chips. Step: 3 chips.
			INTEGER(0.	0=0 chips,
			.255)	1=3 chips,

9.2.2.33A PRACH Minimum Spreading Factor

Void.

9.2.2.34 QE-Selector

Void.

9.2.2.34a Qth Parameter

Void

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

Void.

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	M		9.2.2.15	Corresponds to: τ _{S-CCPCH,k} , see ref. [8]	I	
DL Scrambling Code	M		9.2.2.11		ı	
FDD DL Channelisation Code Number	M		9.2.2.14		ı	
TFCS	М		9.2.1.63	For the DL.	-	
Secondary CCPCH Slot Format	M		9.2.2.38		ı	
TFCI Presence	C - SlotFormat		9.2.1.55		ı	
Multiplexing Position	М		9.2.2.26		-	
STTD Indicator	М		9.2.2.44		-	
FACH/PCH Information		1 <maxfac Hcount+1></maxfac 			I	
>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH		
IB Scheduling Information		1			-	
>IB_SG_REP	M		9.2.2.21		_	
>IB Segment Information		1 <maxibse G></maxibse 			_	
>>IB_SG_POS	М		9.2.2.20		_	

Condition	Explanation
SlotFormat	The IE shall be present if the Secondary CCPCH Slot Format IE is
	equal to any of the values from 8 to 17.

Range bound	Explanation
maxFACHCount	Maximum number of FACHs mapped onto a Secondary CCPCH.
maxIBSEG	Maximum number of segments for one Information Block.

9.2.2.38 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Secondary CCPCH Slot Format			INTEGER(017)	See ref. [8].

9.2.2.38A Secondary CPICH Information

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

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
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

Void.

9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SRB Delay			INTEGER(0.	In number of frames.
·			.7,)	

9.2.2.40 SSDT Cell Identity

Void.

9.2.2.40A SSDT Cell Identity for EDSCHPC

Void.

9.2.2.41 SSDT Cell Identity Length

Void.

9.2.2.42 SSDT Indication

Void.

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(Not Used, SSDT not supported).	The SSDT Support Indicator IE shall never be set to "Not Used". If received it shall be rejected.

9.2.2.44 STTD Indicator

Indicates if STTD is active or not.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
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 has only one value with any meaning.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Signalling Mode			ENUMERAT ED(Normal, Not Used)	The value "Not Used" shall not be used by the SRNC. The procedure shall be rejected by the DRNC if the value "Not Used" is received.

9.2.2.46A TFCI PC Support Indicator

Void.

9.2.2.47 Transmission Gap Distance (TGD)

Void.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxtgps></maxtgps>		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps >)</maxtgps 	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	M		INTEGER(014)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		INTEGER(1. .14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER(114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 = undefined).
>TGPL1	М		INTEGER(1144,)	The duration of transmission gap pattern 1 in frames.
>Not-to-be-used-1	0		INTEGER(1144,)	This IE shall never be included in the IE group. If received it shall be ignored.
>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(not Used, SF/2, higher layer scheduling,)	Method for generating downlink compressed mode gap. The Downlink Compressed Mode Method IE shall never be set to "not Used".
>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
	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or "UL/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

Void.

9.2.2.50B UE Support Of Dedicated Pilots For Channel Estimation Of HS-DSCH

Void.

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 ²⁴ -1)	
UL Scrambling Code Length	М		ENUMERAT ED(Short, Long)	

9.2.2.54 Uplink Delta SIR

Void

9.2.2.55 Uplink Delta SIR After

Void

9.2.2.56 DPC Mode Change Support Indicator

The DPC Mode Change Support Indicator IE indicates that the particular cell is capable to support DPC mode change.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode Change Support Indicator			ENUMERATTE D (DPC Mode	
			Change Supported)	

9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

9.2.3.a Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

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 Reference	Semantics Description
Cell Capability Container TDD			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Capability Container TDD LCR			BIT STRING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator. The second bit: HS-DSCH Support Indicator. The third bit: DSCH Support Indicator. Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CCTrCH ID			INTEGER	
			(015)	

9.2.3.2A DCH TDD Information

The *DCH TDD Information* IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DCH Information		1 <maxno ofDCHs></maxno 			-	
>Payload CRC Presence Indicator	М		9.2.1.42		-	
>UL FP Mode	M		9.2.1.67		_	
>ToAWS	M		9.2.1.58		_	
>ToAWE	M		9.2.1.57		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>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 DCH Specific Info IE is greater than 1).

Range bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE.

9.2.3.2B DCH TDD Information Response

Void

9.2.3.2C DL Timeslot Information

The DL Timeslot Information IE provides information on the time slot allocation for a DL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Timeslot Information		1 <maxno OfTS></maxno 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift And Burst Type	М		9.2.3.4		_	
>TFCI Presence	M		9.2.1.55		_	
>DL Code Information	М		TDD DL Code Information 9.2.3.8C		-	

Range bound	Explanation
maxnoofTSs	Maximum number of Timeslots for a UE.

9.2.3.2D DL Time Slot ISCP Info

The DL Time Slot ISCP Info IE gives interference level for each DL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Time Slot ISCP Info		1 <maxno ofDLts></maxno 			-	
>Time Slot	M		9.2.1.56		_	
>DL Timeslot ISCP	M		9.2.3.12		ı	

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			
DL Timeslot Information LCR		1 <maxnoof DLtsLCR></maxnoof 			-	
>Time Slot LCR	М		9.2.3.12a		-	
>Midamble Shift LCR	М		9.2.3.4C		_	
>TFCI Presence	М		9.2.1.57		_	
>DL Code Information LCR	М		TDD DL Code Information LCR 9.2.3.8D		ľ	
>Maximum DL TX Power	0		DL Power 9.2.1.21A	Maximum allowed power on DPCH	YES	ignore
>Minimum DL TX Power	0		DL Power 9.2.1.21A	Minimum allowed power on DPCH	YES	ignore

Range bound	Explanation
maxnoofDLtSLCR	Maximum number of Downlink time slots per Radio Link for
	1.28Mcps TDD.

9.2.3.2F DL Time Slot ISCP Info LCR

The DL *Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DL Time Slot ISCP Info LCR		1 <maxnooful tsLCR></maxnooful 			_	
>Time Slot LCR	M		9.2.3.12a		_	
>DL Timeslot ISCP	M		9.2.3.12		_	

Range bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD

9.2.3.2G 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)	

9.2.3.2H 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.

9.2.3.2I 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			1	
>DSCH Scheduling Priority	M		Scheduling Priority Indicator 9.2.1.51A		-	
>MAC-c/sh SDU Length		1 <maxnb MAC- c/shSDUL ength></maxnb 			_	
>>MAC-c/sh SDU Length	M		9.2.1.34		_	
>DSCH Initial Window Size	0		9.2.3.2H		YES	ignore

Range bound	Explanation		
maxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.		

9.2.3.2J 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 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)	

9.2.3.3 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0239)	

9.2.3.3a DSCH TDD Information

The DSCH TDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
DSCH TDD Information		1 <maxno ofDSCHs></maxno 			ı	
>DSCH ID	M		9.2.3.2G		_	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	-	
>TrCH Source Statistics Descriptor	М		9.2.1.65		1	
>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	M		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		OWS>				
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		_	
>Binding ID	0		9.2.1.3		_	
>Transport Layer Address	0		9.2.1.62		_	
>HS-DSCH Initial Capacity Allocation	O		9.2.1.30Na		_	
HS-SCCH Specific Information Response		0 <maxno ofHSSCC Hcodes></maxno 		Not 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	М		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></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	M		9.2.3.8		_	
HS-PDSCH Timeslot Specific Information Response		0 <maxno ofDLts></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 ></maxno 		Not Applicable to 3.84Mcps TDD.	GLOBAL	reject
>Time Slot LCR	М		9.2.3.12a		-	
>Midamble Shift LCR	М		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
			Kererence	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></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.

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).

Presence	Range	IE Type and Reference	Semantics Description
M		ENUMERATED(4, 8,	As defined in [12]
		16)	
M		`	
CUE			
C-UE		INTEGER(015)	
M		ENLIMERATED (3.6)	As defined in [12]
141		ENGINETO (1EB (0, 0)	7.5 delined in [12]
М		ENUMERATED(Defa	
		ult midamble,	
		Common midamble,	
		UE specific	
		,	
C-UE			
		(015)	1.11
1.4		ENUMERATER (4.0	UL only
M			As defined in [12]
		10)	
M		ENLIMEDATED/Dofo	
IVI			
C-UE			
		2021(01110)	
	M M C-UE	M M C-UE M M M M M	Reference M ENUMERATED(4, 8, 16) M ENUMERATED(Defa ult midamble, Common midamble, UE specific midamble) INTEGER(015) M ENUMERATED (3, 6) M ENUMERATED (Defa ult midamble, UE specific midamble, UE specific midamble) INTEGER (015) M ENUMERATED (4, 8, 16) M ENUMERATED (4, 8, 16)

Condition	Explanation		
UE	The IE shall be present if the Midamble Allocation		
	Mode IE is set to "UE-specific midamble".		

9.2.3.4A Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading			INTEGER	
Factor			(116)	

9.2.3.4B IPDL TDD parameters

The IPDL TDD Parameters IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP Spacing TDD	M		ENUMERAT ED(30,40,50 , 70, 100,)	See [22]
IP Start	М		INTEGER(04095)	See [22]
IP Slot	М		INTEGER(014)	See [22]
IP P-CCPCH	М		ENUMERAT ED(Switch off 1 frame, Switch off 2 frames)	See [22]
Burst mode parameters	0		9.2.1.4B	

9.2.3.4Bb IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

IE/Group name	Presence	Range	IE Type and Reference	Semantics Description
IP Spacing TDD	M		ENUMERAT ED(30,40,50 , 70, 100,)	See [22]
IP Start	M		INTEGER(04095)	See [22]
IP_Sub	М		ENUMERAT ED(First,Sec ond,Both)	See [22]
Burst mode parameters	0		9.2.1.4B	

9.2.3.4C Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

- Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL);
- Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only);
- UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL).

IE/Group name	Presence	Range	IE Type and	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></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></maxno 			-	
>TDD Channelisation Code	М		9.2.3.8		_	

Range bound	Explanation		
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.		

9.2.3.7D Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Special Burst Scheduling			INTEGER(1, 2,, 256)	Number of frames between special burst transmissions
			_,, _55)	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	M		9.2.1.63	For the DL.	_	
TFCI Coding	M		9.2.3.11		_	
Secondary CCPCH		0 <maxno ofSCCPC Hs></maxno 			-	
>Time Slot LCR	M		9.2.3.12a		_	
>Midamble Shift LCR	M		9.2.3.4C		_	
>TFCI Presence	M		9.2.1.55		_	
> Secondary CCPCH TDD Code Information LCR	M		9.2.3.7G		_	
>TDD Physical Channel Offset	М		9.2.3.9			
>Repetition Length	M		9.2.3.6		_	
>Repetition Period	M		9.2.3.7		_	
FACH		0 <maxno ofFACHs></maxno 			_	
> TFS	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></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 Reference	Semantics Description
			11010101100	
CHOICE Offset Type				
>Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER	
			(0255)	
>No Initial Offset				
>>TDD DPCH Offset Value	М		INTEGER	
			(063)	

9.2.3.8B TDD DCHs To Modify

The $TDD\ DCHs\ To\ Modify\ IE$ provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD DCHs To Modify		1 <maxno ofDCHs></maxno 			_	
>UL FP Mode	0		9.2.1.67		_	
>ToAWS	0		9.2.1.58		_	
>ToAWE	0		9.2.1.57		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>CCTrCH ID	0		9.2.3.2	UL CCTrCH in which the DCH is mapped.	_	
>>CCTrCH ID	0		9.2.3.2	DL CCTrCH in which the DCH is mapped	-	
>>Transport Format Set	0		9.2.1.64	For the UL.	_	
>>Transport Format Set	0		9.2.1.64	For the DL.	_	
>>Allocation/Retention Priority	0		9.2.1.1		_	
>>Frame Handling Priority	0		9.2.1.29			
>>Traffic Class	0		9.2.1.58A		YES	ignore
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>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 LCR		1 <maxnoof DPCHLCR ></maxnoof 			-	
>DPCH ID	M		9.2.3.5		_	
>TDD Channelisation Code LCR	M		9.2.3.8a		_	
> TDD DL DPCH Time Slot Format LCR	М		9.2.3.8E		1	

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	Unit: dB
			(1, 2, 3,)	

9.2.3.10A TDD UL Code Information

The TDD UL Code Information IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information		1 <maxno OfDPCHs</maxno 			_	
		>				
>DPCH ID	M		9.2.3.3		_	
>TDD Channelisation Code	M		9.2.3.8		_	

Range bound	Explanation			
maxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.			

9.2.3.10B TDD UL Code Information LCR

The TDD UL Code Information LCR IE provides information for UL Code to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
TDD UL Code Information LCR		1 <maxno OfDPCH LCR></maxno 			_	
>DPCH ID	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	М		INTEGER	
Time Slot Format LCR			(069,)	
> 8PSK				
>>8PSK TDD UL DPCH	М		INTEGER	
Time Slot Format LCR			(024,)	

9.2.3.11 TFCI Coding

The TFCI Coding describes how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Coding			ENUMERATE	
_			D(4, 8, 16,	
			32,)	

9.2.3.12 DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot ISCP			INTEGER(091)	According to mapping in [24].

9.2.3.12a Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR			INTEGER	
			(06)	

9.2.3.12A Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timing Advance Applied			ENUMERAT ED(Yes, No)	

9.2.3.13 Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

IE/Group Name	Presence	Range	IE Type and	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></maxno 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift And Burst Type	M		9.2.3.4		_	
>TFCI Presence	M		9.2.1.55		_	
>UL Code Information	М		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></maxn 			_	
>Time Slot LCR	M		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></maxnooful 			_	
>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			INTEGER (18)	Unit: subframe, step: 1
frequency				

9.2.3.13J Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink synchronisation step			INTEGER (18)	Unit: 1/8 chip, step: 1.
size				

9.2.3.13K Uplink Timing Advance Control LCR

The Uplink Timing Advance Control LCR indicates the parameters which are used to support Uplink Synchronisation for the UE in 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SYNC UL codes bitmap	M		BITSTRING (8)	Each bit indicates the availability of a SYNC_UL code.
FPACH info		1		
>Time Slot LCR	M		9.2.3.12a	
>TDD Channelisation Code LCR	М		9.2.3.8a	
>Midamble Shift LCR	M		9.2.3.4C	
>WT	M		INTEGER (14)	Maximum number of subframes to wait for transmission of FPACH.
PRXupPCHdes	M		INTEGER (-120 – 58,)	Desired UpPCH receive power. Unit: dBm Step size: 1
SYNC UL procedure		1		
parameters >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 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></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></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
    radioLinkDelet.ion
    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
```

```
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,
   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-FlowControlInformation,
DSCH-FlowControlItem,
DSCH-TDD-Information,
DSCH-ID.
DSCH-RNTI,
SchedulingPriorityIndicator,
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.
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,
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PC-Preamble,
```

```
Permanent-NAS-UE-Identity,
Phase-Reference-Update-Indicator,
PowerAdjustmentType,
PowerOffset,
PrimaryCCPCH-RSCP,
PrimaryCPICH-EcNo,
PrimaryCPICH-Power,
Primary-CPICH-Usage-For-Channel-Estimation,
PrimaryScramblingCode,
PropagationDelay,
PunctureLimit,
QE-Selector,
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-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-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-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,
   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{},
```

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ProtocolIE-Single-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers
    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfCCTrCHs,
    maxNrOfDCHs,
    maxNrOfTS,
    maxNrOfDPCHs,
    maxNrOfRLs.
    maxNrOfRLSets,
    maxNrOfRLSets-1,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfULTs,
    maxNrOfDLTs,
    maxResetContext,
    maxResetContextGroup,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR.
    maxNrOfDLTsLCR,
    maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    maxNrOfHSSICHs,
    id-Active-Pattern-Sequence-Information,
    id-AdjustmentRatio,
    id-AllowedQueuingTime,
    id-AntennaColocationIndicator,
    id-BindingID,
    id-C-ID,
    id-C-RNTI,
    id-CFN,
    id-CFNReportingIndicator,
    id-CN-CS-DomainIdentifier,
    id-CN-PS-DomainIdentifier,
    id-Cause,
    id-CauseLevel-RL-AdditionFailureFDD,
    id-CauseLevel-RL-AdditionFailureTDD,
    id-CauseLevel-RL-ReconfFailure,
    id-CauseLevel-RL-SetupFailureFDD,
    id-CauseLevel-RL-SetupFailureTDD,
    id-CCTrCH-InformationItem-RL-FailureInd,
    id-CCTrCH-InformationItem-RL-RestoreInd,
    id-CellCapabilityContainer-FDD,
```

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id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR.
id-ClosedLoopModel-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-RNTI.
id-D-RNTI-ReleaseIndication.
id-DCHs-to-Add-FDD
id-DCHs-to-Add-TDD,
id-DCH-DeleteList-RL-ReconfPrepFDD,
id-DCH-DeleteList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfRqstFDD,
id-DCH-DeleteList-RL-ReconfRgstTDD,
id-DCH-FDD-Information,
id-DCH-TDD-Information,
id-FDD-DCHs-to-Modify,
id-TDD-DCHs-to-Modify,
id-DCH-InformationResponse,
id-DCH-Rate-InformationItem-RL-CongestInd,
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
id-DL-CCTrCH-InformationListIE-PhyChReconfRgstTDD,
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD,
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRgstTDD,
id-FDD-DL-CodeInformation,
id-DL-DPCH-Information-RL-ReconfPrepFDD.
id-DL-DPCH-Information-RL-SetupRgstFDD,
id-DL-DPCH-Information-RL-ReconfRgstFDD,
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,
id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
id-DL-DPCH-InformationItem-RL-SetupRspTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-DL-DPCH-TimingAdjustment,
```

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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-Rgst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,
id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode.
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-TDD,
id-DSCH-DeleteList-RL-ReconfPrepTDD,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
id-DSCH-TDD-Information,
id-DSCH-ModifyList-RL-ReconfPrepTDD,
id-DSCH-RNTI,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
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-L3-Information,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MeasurementFilterCoefficient.
id-MeasurementID.
id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
id-PagingArea-PagingRgst,
id-PartialReportingIndicator,
id-PDSCH-RL-ID,
id-Permanent-NAS-UE-Identity,
id-Phase-Reference-Update-Indicator,
id-FACH-FlowControlInformation,
id-PowerAdjustmentType,
id-PrimCCPCH-RSCP-DL-PC-RgstTDD,
id-Primary-CPICH-Usage-For-Channel-Estimation,
id-PropagationDelay,
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-DeletionRqst,
id-RL-Information-RL-FailureInd,
id-RL-Information-RL-ReconfPrepFDD,
id-RL-Information-RL-ReconfPrepTDD,
id-RL-Information-RL-RestoreInd,
id-RL-Information-RL-SetupRqstFDD,
id-RL-Information-RL-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-ReconfigurationRequestFDD-RL-InformationList,
id-RL-ReconfigurationRequestFDD-RL-Information-IEs,
id-RL-ReconfigurationRequestTDD-RL-Information,
id-RL-ReconfigurationResponseTDD-RL-Information,
id-RL-Specific-DCH-Info,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rgst,
id-RL-Set-InformationItem-DM-Rsp,
id-RL-Set-Information-RL-FailureInd,
id-RL-Set-Information-RL-RestoreInd.
id-RL-Set-Successful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail,
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind,
id-RL-Successful-InformationItem-DM-Fail.
id-RL-Unsuccessful-InformationItem-DM-Fail,
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind,
id-ReportCharacteristics,
id-Reporting-Object-RL-FailureInd,
id-Reporting-Object-RL-RestoreInd,
id-RNC-ID,
id-RxTimingDeviationForTA,
id-S-RNTI,
id-SAI,
id-Secondary-CPICH-Information-Change,
id-SFN.
id-SFNReportingIndicator,
id-SNA-Information,
id-SRNC-ID,
id-STTD-SupportIndicator,
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-TDD-maxNrDLPhysicalchannels,
id-TDD-Support-8PSK,
id-timeSlot-ISCP,
id-TimeSlot-RL-SetupRspTDD,
id-TnlOos,
id-TransportBearerID,
id-TransportBearerRequestIndicator,
id-TransportLaverAddress,
id-UC-ID,
id-ContextInfoItem-Reset,
id-ContextGroupInfoItem-Reset,
id-Transmission-Gap-Pattern-Sequence-Information,
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD,
```

```
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD.
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRastTDD.
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-ReconfRgstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD.
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD.
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRgstFDD,
id-UL-DPCH-Information-RL-SetupRgstFDD,
id-UL-DPCH-InformationItem-PhyChReconfRgstTDD,
id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
id-UL-DPCH-InformationItem-RL-SetupRspTDD.
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
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-ReconfReadyTDD,
    id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD.
    id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadvTDD.
    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-SetupRgstTDD,
    id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
    id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
    id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
    id-neighbouringTDDCellMeasurementInformationLCR,
   id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
    id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD.
   id-TrafficClass.
    id-UL-Synchronisation-Parameters-LCR,
    id-TDD-DL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
    id-TDD-UL-DPCH-TimeSlotFormatModifyItem-LCR-RL-ReconfReadyTDD,
    id-MAChs-ResetIndicator,
    id-UL-TimingAdvanceCtrl-LCR,
    id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD,
   id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD,
   id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD,
   id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD,
   id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD,
    id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD,
    id-Maximum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
    id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD,
    id-DL-CCTrCH-InformationList-RL-ReconfRspTDD,
    id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD,
    id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRgstTDD,
    id-UL-CCTrCH-InformationList-RL-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 ::= SEQUENCE {
                                   ProtocolIE-Container
                                                             {{RadioLinkSetupRequestFDD-IEs}},
   protocolIEs
   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 AllowedOueuingTime
                                                                                                PRESENCE optional }
     ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE UL-DPCH-Information-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
     ID id-DL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE DL-DPCH-Information-RL-SetupRqstFDD
                                                                                                                 PRESENCE mandatory
     ID id-DCH-FDD-Information
                                    CRITICALITY reject TYPE DCH-FDD-Information
                                                                                        PRESENCE mandatory }
                                                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
                                                                                                                                         PRESENCE
    optional }
    { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
UL-DPCH-Information-RL-SetupRgstFDD ::= SEQUENCE
    ul-ScramblingCode
                                    UL-ScramblingCode,
    minUL-ChannelisationCodeLength
                                            MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPCHs
                                    MaxNrOfUL-DPCHs
                                                            OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
    ul-PunctureLimit
                                    PunctureLimit,
    ul-TECS
                                    TFCS,
    ul-DPCCH-SlotFormat
                                    UL-DPCCH-SlotFormat,
    ul-SIRTarget
                                    UL-SIR
                                                    OPTIONAL,
    diversityMode
                                    DiversityMode,
    not-Used-sSDT-CellIdLength
                                    NULL
                                                    OPTIONAL,
    not-Used-s-FieldLength
                                    NULL
                                                    OPTIONAL,
                                    ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRgstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-DPC-Mode
                                    CRITICALITY reject
                                                            EXTENSION DPC-Mode PRESENCE optional },
    . . .
DL-DPCH-Information-RL-SetupRgstFDD ::= SEQUENCE
    t.FCS
                                    TFCS,
    dl-DPCH-SlotFormat
                                    DL-DPCH-SlotFormat,
    nrOfDLchannelisationcodes
                                    NrOfDLchannelisationcodes,
    tFCI-SignallingMode
                                    TFCI-SignallingMode,
                                    TFCI-Presence
    tFCI-Presence
                                                            OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition
                                        MultiplexingPosition,
    powerOffsetInformation
                                        PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize
                                    FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease
                                    LimitedPowerIncrease,
    innerLoopDLPCStatus
                                    InnerLoopDLPCStatus,
                                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRgstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-Information-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
```

```
PowerOffsetInformation-RL-SetupRgstFDD ::= SEQUENCE
       pol-ForTFCI-Bits
                                      PowerOffset.
                                      PowerOffset,
       po2-ForTPC-Bits
       po3-ForPilotBits
                                      PowerOffset,
       iE-Extensions
                                      ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-SetupRqstFDD
                                          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD} }
RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
   rL-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
                                                     OPTIONAL,
   dl-InitialTX-Power
   primaryCPICH-EcNo
                                  PrimaryCPICH-EcNo
                                                             OPTIONAL,
   not-Used-sSDT-CellID
                                      NULL
                                                     OPTIONAL,
    transmitDiversitvIndicator
                                  TransmitDiversitvIndicator
                                                                 OPTIONAL,
    -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Enhanced-PrimaryCPICH-EcNo
                                                  CRITICALITY ignore
                                                                             EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                                    PRESENCE optional } |
     ID id-RL-Specific-DCH-Info CRITICALITY ignore
                                                         EXTENSION RL-Specific-DCH-Info
                                                                                            PRESENCE optional } |
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional },
    . . .
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
                                                                                                                  PRESENCE optional } |
                                              CRITICALITY ignore
                                                                     EXTENSION DL-PowerBalancing-Information
                                                                                                                  PRESENCE optional |
     ID id-HSDSCH-FDD-Information
                                                  CRITICALITY reject
                                                                             EXTENSION HSDSCH-FDD-Information
    { ID id-HSPDSCH-RL-ID
                                                  CRITICALITY reject
                                                                             EXTENSION RL-ID
                                                                                                                  PRESENCE conditional },
    -- This IE shall be present if HS-DSCH Information IE is present.
```

```
RADIO LINK SETUP REQUEST TDD
        RadioLinkSetupRequestTDD ::= SEQUENCE {
                                                           {{RadioLinkSetupRequestTDD-IEs}},
   protocolIEs
                                 ProtocolIE-Container
                                 ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
   . . .
RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                                    CRITICALITY reject TYPE RNC-ID
                                                                                                                    PRESENCE mandatory }
     ID id-S-RNTI
                                                                                                                    PRESENCE mandatory
                                                    CRITICALITY reject TYPE S-RNTI
     ID id-D-RNTI
                                                                                                                   PRESENCE optional }
                                                    CRITICALITY reject TYPE D-RNTI
     ID id-UL-Physical-Channel-Information-RL-SetupRgstTDD CRITICALITY reject TYPE UL-Physical-Channel-Information-RL-SetupRgstTDD
mandatory } |
    { ID id-DL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject TYPE DL-Physical-Channel-Information-RL-SetupRqstTDD
                                                                                                                               PRESENCE
mandatory } |
     ID id-AllowedQueuingTime
                                                                                                                    PRESENCE optional
                                                    CRITICALITY reject TYPE AllowedQueuingTime
     ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                   CRITICALITY notify TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                                                                   PRESENCE optional
     PRESENCE optional }
     ID id-DCH-TDD-Information
                                     CRITICALITY reject TYPE DCH-TDD-Information
                                                                                         PRESENCE optional
     ID id-DSCH-TDD-Information
                                     CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                         PRESENCE optional
     ID id-USCH-Information
                                 CRITICALITY reject TYPE USCH-Information
                                                                                  PRESENCE optional }
     ID id-RL-Information-RL-SetupRgstTDD
                                                   CRITICALITY reject TYPE RL-Information-RL-SetupRqstTDD
                                                                                                                    PRESENCE mandatory }
UL-Physical-Channel-Information-RL-SetupRqstTDD ::= SEQUENCE {
   maxNrTimeslots-UL
                                 MaxNrTimeslots,
   minimumSpreadingFactor-UL
                                 MinimumSpreadingFactor,
   maxNrULPhysicalchannels
                                 MaxNrULPhysicalchannels,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-TDD-Support-8PSK
                                 CRITICALITY ignore
                                                        EXTENSION Support-8PSK
                                                                                  PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
DL-Physical-Channel-Information-RL-SetupRgstTDD ::= SEOUENCE {
   maxNrTimeslots-DL
                                 MaxNrTimeslots,
   minimumSpreadingFactor-DL
                                 MinimumSpreadingFactor,
   maxNrDLPhysicalchannels
                                 MaxNrDLPhysicalchannels,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    . . .
```

```
DL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TDD-maxNrDLPhysicalchannels
                                      CRITICALITY ignore
                                                               EXTENSION MaxNrDLPhysicalchannelsTS
                                                                                                   PRESENCE optional } |
     ID id-TDD-Support-8PSK
                                      CRITICALITY ignore
                                                               EXTENSION Support-8PSK
                                                                                                PRESENCE optional }.
   -- Applicable to 1.28Mcps TDD only
UL-CCTrCH-InformationList-RL-SetupRgstTDD
                                             ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRqstTDD} }
UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
   UL-CCTrCH-InformationItem-RL-SetupRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   ul-TFCS
                            TFCS,
   tFCI-Coding
                            TFCI-Coding,
   ul-PunctureLimit
                               PunctureLimit,
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-CCTrCH-InformationItem-RL-SetupRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD
                                                    CRITICALITY reject
                                                                          EXTENSION TDD-TPC-UplinkStepSize-LCR
                                                                                                                PRESENCE optional },
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
   . . .
DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                             ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-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-SetupRqstTDD OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
   . . .
DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-TPCList-RL-SetupRqstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD
CCTrCH-TPCItem-RL-SetupRqstTDD ::= SEQUENCE {
```

```
cCTrCH-ID
                                       CCTrCH-ID.
   iE-Extensions
                                       ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-SetupRgstTDD ::= SEOUENCE
   rI.-ID
                               RL-ID,
   c-ID
                               C-ID,
   frameOffset
                               FrameOffset.
    specialBurstScheduling
                               SpecialBurstScheduling,
   primaryCCPCH-RSCP
                                   PrimaryCCPCH-RSCP
                                                           OPTIONAL,
   dL-TimeSlot-ISCP
                                   DL-TimeSlot-ISCP-Info
                                                          OPTIONAL,
    --for 3.84Mcps TDD only
   iE-Extensions
                                   ProtocolExtensionContainer { {RL-Information-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
    . . .
RL-Information-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD
                                                              CRITICALITY reject
                                                                                      EXTENSION
                                                                                                  DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional }|
    { ID id-TSTD-Support-Indicator-RL-SetupRqstTDD
                                                              CRITICALITY ignore
                                                                                      EXTENSION
                                                                                                  TSTD-Support-Indicator
                                                                                                                                   PRESENCE
optional
    -- for 1.28Mcps TDD only
     ID id-RL-Specific-DCH-Info CRITICALITY ignore
                                                          EXTENSION RL-Specific-DCH-Info
                                                                                              PRESENCE optional } |
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
    { ID id-UL-Synchronisation-Parameters-LCR
                                                      CRITICALITY reject
                                                                              EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                                PRESENCE
    optional | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-PrimaryCCPCH-RSCP-Delta
                                       CRITICALITY ignore
                                                              EXTENSION PrimaryCCPCH-RSCP-Delta
                                                                                                     PRESENCE
                                                                                                                 optional },
   . . .
RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                  CRITICALITY ignore
                                                                              EXTENSION Permanent-NAS-UE-Identity
                                                                                                                    PRESENCE optional }
     ID id-HSDSCH-TDD-Information
                                                                              EXTENSION HSDSCH-TDD-Information PRESENCE optional }
                                                   CRITICALITY reject
    { ID id-HSPDSCH-RL-ID
                                                                              EXTENSION RL-ID
                                                                                                                    PRESENCE conditional } |
                                                   CRITICALITY reject
    -- This IE shall be present if HS-DSCH Information IE is present.
    { ID id-PDSCH-RL-ID
                                                                                  PRESENCE optional },
                                   CRITICALITY ignore
                                                              EXTENSION RL-ID
    . . .
-- RADIO LINK SETUP RESPONSE FDD
  *****************
RadioLinkSetupResponseFDD ::= SEQUENCE {
   protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkSetupResponseFDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
                                                                                                                       OPTIONAL,
    . . .
```

```
RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                         CRITICALITY ignore TYPE D-RNTI
                                                                                           PRESENCE optional
     ID id-CN-PS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                             PRESENCE optional
     ID id-RL-InformationResponseList-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseList-RL-SetupRspFDD PRESENCE mandatory
     ID id-UL-SIRTarget
                                         CRITICALITY ignore TYPE UL-SIR
                                                                                       PRESENCE optional } |
     ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
RL-InformationResponseList-RL-SetupRspFDD
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-SetupRspFDD} }
RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::=
    RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   rL-Set-ID
                                  RL-Set-ID,
   uRA-Information
                                  URA-Information
                                                     OPTIONAL,
    sAI
                                  SAI,
   qA-Cell
                                  GA-Cell
                                             OPTIONAL.
   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-SetupRspFDD,
    sSDT-SupportIndicator
                                  SSDT-SupportIndicator,
   maxUL-SIR
                                  UL-SIR,
   minUL-SIR
                                  UL-SIR,
    closedlooptimingadjustmentmode Closedlooptimingadjustmentmode
                                                                        OPTIONAL.
   maximumAllowedULTxPower
                                  MaximumAllowedULTxPower,
    maximumDLTxPower
                                  DL-Power,
   minimumDLTxPower
                                  DL-Power,
   primaryScramblingCode
                                  PrimaryScramblingCode
                                                                        OPTIONAL,
    uL-UARFCN
                                  UARFCN
                                                                        OPTIONAL,
   dL-UARFCN
                                  UARECN
                                                                        OPTIONAL,
   primaryCPICH-Power
                                  PrimaryCPICH-Power,
   not-Used-dSCHInformationResponse
                                                                        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 }
```

```
PRESENCE optional } |
     ID id-HCS-Prio
                                                 CRITICALITY ignore EXTENSION HCS-Prio
                                                                                                                     PRESENCE optional },
   . . .
DiversityIndication-RL-SetupRspFDD ::= CHOICE {
   combining
                                 Combining-RL-SetupRspFDD,
   nonCombiningOrFirstRL
                                 NonCombiningOrFirstRL-RL-SetupRspFDD
Combining-RL-SetupRspFDD ::= SEQUENCE {
   iE-Extensions
                              ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
   { ID id-DCH-InformationResponse
                                         CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                 PRESENCE optional },
   . . .
NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
   dCH-InformationResponse
                             DCH-InformationResponse,
   iE-Extensions
                              ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL.
NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-RNTI
                                             CRITICALITY ignore
                                                                   EXTENSION HSDSCH-RNTI
                                                                                                               PRESENCE optional } |
    ID id-HSDSCH-FDD-Information-Response
                                             CRITICALITY ignore
                                                                   EXTENSION HSDSCH-FDD-Information-Response
                                                                                                               PRESENCE optional },
-- RADIO LINK SETUP RESPONSE TDD
RadioLinkSetupResponseTDD ::= SEOUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                           {{RadioLinkSetupResponseTDD-IEs}},
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}
                                                                                                                   OPTIONAL,
RadioLinkSetupResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                 CRITICALITY ignore TYPE D-RNTI
                                                                                   PRESENCE optional }
     ID id-CN-PS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                            PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                         CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                            PRESENCE optional }
```

```
-- 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 ::= SEOUENCE {
   rI.-ID
                              RL-ID,
   uRA-Information
                              URA-Information
                                                  OPTIONAL,
    SAT
                              SAI,
    qA-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.
                              UARECN
                                                  OPTIONAL,
    cellParameterID
                              CellParameterID
                                                  OPTIONAL,
                              SyncCase
    syncCase
                                                  OPTIONAL,
    sCH-TimeSlot
                              SCH-TimeSlot
                                                  OPTIONAL,
    -- This IE shall be present if Sync Case IE is equal to "Case2". --
    sCTD-Indicator
                              SCTD-Indicator OPTIONAL,
    pCCPCH-Power
                               PCCPCH-Power.
                              TimingAdvanceApplied,
    timingAdvanceApplied
    alphaValue
                              AlphaValue,
                              UL-PhysCH-SF-Variation,
    ul-PhysCH-SF-Variation
    synchronisationConfiguration
                                      SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                      Secondary-CCPCH-Info-TDD
                                                                 OPTIONAL,
    ul-CCTrCHInformation
                                      UL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
    dl-CCTrCHInformation
                                      DL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
                                      DCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
   dCH-InformationResponse
   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 ::= {
                                                                                                   PRESENCE optional } |
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION
                                                                         GA-CellAdditionalShapes
     ID id-HCS-Prio
                              CRITICALITY ignore EXTENSION HCS-Prio
                                                                             PRESENCE optional }
     ID id-TimeSlot-RL-SetupRspTDD
                                      CRITICALITY ignore EXTENSION TimeSlot
                                                                                PRESENCE conditional },
    -- This IE shall be present if Sync Case IE is Casel. --
    . . .
UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                          PRESENCE mandatory
```

```
UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD
UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
                             CCTrCH-ID,
   cCTrCH-ID
   ul-DPCH-Information
                                 UL-DPCH-InformationList-RL-SetupRspTDD
                                                                           OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD
                                                                CRITICALITY ignore
                                                                                                         PRESENCE optional },
                                                                                      EXTENSION UL-SIR
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 ::= SEOUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
                                 TDD-DPCHOffset,
   tDD-DPCHOffset
   uL-Timeslot-Information
                                 UL-Timeslot-Information,
                                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD
DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
                             CCTrCH-ID,
   cCTrCH-ID
   dl-DPCH-Information
                                 DL-DPCH-InformationList-RL-SetupRspTDD
                                                                           OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   . . .
DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-CCTrCH-Maximum-DL-Power-RL-SetupRspTDD
                                                    CRITICALITY ignore
                                                                           EXTENSION DL-Power
                                                                                              PRESENCE optional } | -- this is a DCH type
CCTrCH power
```

```
PRESENCE optional }, -- this is a DCH type
    { ID id-CCTrCH-Minimum-DL-Power-RL-SetupRspTDD
                                                      CRITICALITY ignore
                                                                              EXTENSION DL-Power
CCTrCH power
    . . .
DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                   RepetitionPeriod,
   repetitionLength
                                   RepetitionLength,
                                   TDD-DPCHOffset,
    tDD-DPCHOffset
   dL-Timeslot-Information
                                   DL-Timeslot-Information,
                                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}
DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}
DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD
                                                      CRITICALITY ignore TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD
DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   dsch-ID
                           DSCH-ID,
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                           BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
                           ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL.
   iE-Extensions
DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
```

```
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::=
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD
                                                         CRITICALITY ignore TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD
USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID
                                USCH-ID,
    bindingID
                                BindingID OPTIONAL,
                                TransportLayerAddress
    transportLayerAddress
                                                        OPTIONAL,
    transportFormatManagement
                                TransportFormatManagement,
    iE-Extensions
                                ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD CRITICALITY ignore EXTENSION RL-LCR-InformationResponse-RL-SetupRspTDD
                                                                                                                                       PRESENCE
optional}|
    -- Mandatory for 1.28Mcps TDD only
     ID id-HSDSCH-RNTI
                                                CRITICALITY ignore
                                                                         EXTENSION HSDSCH-RNTI
                                                                                                                        PRESENCE optional }
      ID id-HSDSCH-TDD-Information-Response
                                                CRITICALITY ignore
                                                                         EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                        PRESENCE optional } |
    { ID id-DSCH-RNTI
                                                CRITICALITY ignore
                                                                                                                        PRESENCE optional },
                                                                         EXTENSION DSCH-RNTI
    . . .
RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
    uRA-Information
                                URA-Information,
    SAT
                                SAI,
    gA-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.
                                UARECN
                                                         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-RL-SetupRspTDD
    usch-LCR-InformationResponse
                                                                                             OPTIONAL,
```

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neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation
                                                                                            OPTIONAL,
    neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation
                                                                                            OPTIONAL.
                                            ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
    iE-Extensions
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
                                                                                                                 PRESENCE optional },
                                                    CRITICALITY ignore EXTENSION
                                                                                    UL-TimingAdvanceCtrl-LCR
    -- Mandatory for 1.28Mcps TDD only
    . . .
UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                      PRESENCE
mandatory }
UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    ul-DPCH-LCR-Information
                                UL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                                OPTIONAL.
                                ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
                                                                        CRITICALITY ignore
                                                                                                EXTENSION UL-SIR
                                                                                                                    PRESENCE optional },
    . . .
UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    uL-TimeslotLCR-Information
                                    UL-TimeslotLCR-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD PRESENCE
mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEOUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    dl-DPCH-LCR-Information
                                DL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                                OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                           CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod
                                   RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                   TDD-DPCHOffset,
    dL-Timeslot-LCR-Information
                                   DL-TimeslotLCR-Information,
    tSTD-Indicator
                                    TSTD-Indicator,
                                    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,
   iE-Extensions
                          ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}
USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                         CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEOUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD
USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   usch-ID
                              USCH-ID,
   bindingID
                              BindingID OPTIONAL,
    transportLayerAddress
                              TransportLayerAddress
                                                    OPTIONAL,
    transportFormatManagement
                              TransportFormatManagement,
   iE-Extensions
                              ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RADIO LINK SETUP FAILURE FDD
  ****************
RadioLinkSetupFailureFDD ::= SEOUENCE {
   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
                                                     CRITICALITY ignore
                                                                           TYPE CauseLevel-RL-SetupFailureFDD
                                                                                                                 PRESENCE mandatory } |
     ID id-UL-SIRTarget
                                      CRITICALITY ignore TYPE UL-SIR
                                                                                   PRESENCE optional }
    ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
    . . .
```

```
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause
                        GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause
                        RLSpecificCauseList-RL-SetupFailureFDD,
GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE
    iE-Extensions
                                                ProtocolExtensionContainer { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }
                                                                                                                                OPTIONAL,
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureFDD ::= SEOUENCE {
    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-HSDSCH-RNTI
                                                CRITICALITY ignore
                                                                        EXTENSION HSDSCH-RNTI
                                                                                                                       PRESENCE optional } |
    { ID id-HSDSCH-FDD-Information-Response
                                                CRITICALITY ignore
                                                                                                                       PRESENCE optional },
                                                                        EXTENSION HSDSCH-FDD-Information-Response
    . . .
UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                        CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureFDD
                    PRESENCE mandatory }
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
    cause
                                Cause,
    iE-Extensions
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                    CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory }
```

```
SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEOUENCE
                                            RL-ID,
    rL-Set-ID
                                            RL-Set-ID.
    uRA-Information
                                            URA-Information
                                                                                 OPTIONAL,
    SAT
                                            SAI,
    qA-Cell
                                            GA-Cell
                                                         OPTIONAL,
    gA-AccessPointPosition
                                            GA-AccessPointPosition
                                                                                 OPTIONAL,
    received-total-wide-band-power
                                            Received-total-wide-band-power,
                                                                         OPTIONAL,
    secondary-CCPCH-Info
                                            Secondary-CCPCH-Info
    dl-CodeInformation
                                            FDD-DL-CodeInformation,
    diversityIndication
                                            DiversityIndication-RL-SetupFailureFDD,
    sSDT-SupportIndicator
                                            SSDT-SupportIndicator,
    maxUL-SIR
                                            UL-SIR,
    minUL-SIR
                                            UL-SIR,
    closedlooptimingadjustmentmode
                                            Closedlooptimingadjustmentmode
                                                                                 OPTIONAL,
    maximumAllowedULTxPower
                                            MaximumAllowedULTxPower,
    maximumDLTxPower
                                            DL-Power,
    minimumDLTxPower
                                            DL-Power,
    primaryCPICH-Power
                                            PrimaryCPICH-Power,
                                            PrimaryScramblingCode
    primaryScramblingCode
                                                                                 OPTIONAL,
    uL-UARFCN
                                            UARFCN
                                                                                 OPTIONAL,
    dL-UARFCN
                                            UARFCN
                                                                                 OPTIONAL,
    not-Used-dSCH-InformationResponse-RL-SetupFailureFDD
                                                            NULL
                                                                                 OPTIONAL,
    neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation
                                                                                 OPTIONAL,
    neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation
                                                                                 OPTIONAL,
    pC-Preamble
                                            PC-Preamble,
    sRB-Delay
                                            SRB-Delay,
                                            ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                         PRESENCE optional } |
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                             EXTENSION
                                                                                             DL-PowerBalancing-ActivationIndicator
                                                                                                                                       PRESENCE
optional}|
                                                                                 PRESENCE optional },
    { ID id-HCS-Prio
                                CRITICALITY ignore EXTENSION
                                                                HCS-Prio
DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining
                                    Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL
                                NonCombiningOrFirstRL-RL-SetupFailureFDD
Combining-RL-SetupFailureFDD ::= SEOUENCE {
    rL-ID
    iE-Extensions
                                ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    . . .
CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                                                                                         PRESENCE optional },
                                            CRITICALITY ignore EXTENSION DCH-InformationResponse
```

```
NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponse
                                          DCH-InformationResponse,
                                          ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RADIO LINK SETUP FAILURE TDD
__ *******************
RadioLinkSetupFailureTDD ::= SEOUENCE {
                                                             {{RadioLinkSetupFailureTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
                                                                                                                    OPTIONAL,
RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-SetupFailureTDD CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureTDD
                                                                                                   PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
    . . .
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause
                      GeneralCauseList-RL-SetupFailureTDD,
                      RLSpecificCauseList-RL-SetupFailureTDD,
    rLSpecificCause
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    cause
                              ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }
    iE-Extensions
                                                                                                            OPTIONAL,
    . . .
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD \quad Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD \,, \\
```

```
ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
   iE-Extensions
   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 {
   protocolIEs
                               ProtocolIE-Container
                                                       {{RadioLinkAdditionRequestFDD-IEs}},
                               ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}
   protocolExtensions
                                                                                                           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-
AdditionRqstFDD-IEs} }
```

```
RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-AdditionRqstFDD CRITICALITY notify TYPE RL-Information-RL-AdditionRqstFDD
                                                                                                   PRESENCE mandatory
RL-Information-RL-AdditionRgstFDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   C-TD
                                C-ID,
   frameOffset
                                FrameOffset.
   chipOffset
                                ChipOffset,
   diversityControlField
                                DiversityControlField,
                                PrimaryCPICH-EcNo
                                                      OPTIONAL,
   primaryCPICH-EcNo
   not-Used-sSDT-CellID
                                    NULL
                                                  OPTIONAL,
   transmitDiversityIndicator
                                TransmitDiversityIndicator
                                                             OPTIONAL.
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Information-RL-AdditionRgstFDD-ExtIEs} } OPTIONAL,
RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
     ID id-DLReferencePower
                             CRITICALITY ignore
                                                   EXTENSION DL-Power
                                                                            PRESENCE optional } |
                                               CRITICALITY ignore
     ID id-Enhanced-PrimaryCPICH-EcNo
                                                                        EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                              PRESENCE optional } |
     ID id-RL-Specific-DCH-Info
                                    CRITICALITY ignore
                                                          EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                                   optional }
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional },
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}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}
                                                                                                                 OPTIONAL,
   . . .
RadioLinkAdditionRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
RL-Information-RL-AdditionRgstTDD ::= SEQUENCE {
   rL-ID
                                RL-ID,
   c-ID
                                C-ID,
   frameOffset
                                 FrameOffset,
   diversityControlField
                                DiversityControlField,
   primaryCCPCH-RSCP
                                PrimaryCCPCH-RSCP
                                                      OPTIONAL,
```

```
dL-TimeSlot-ISCP-Info
                                 DL-TimeSlot-ISCP-Info OPTIONAL,
   --for 3.84Mcps TDD only
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD CRITICALITY reject
                                                                                  EXTENSION
                                                                                              DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional }|
   -- for 1.28Mcps TDD only
    { ID id-RL-Specific-DCH-Info
                                     CRITICALITY ignore
                                                           EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                                      optional }
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional }
    { ID id-UL-Synchronisation-Parameters-LCR
                                                    CRITICALITY reject
                                                                           EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                          PRESENCE
   optional } | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   { ID id-PrimaryCCPCH-RSCP-Delta
                                     CRITICALITY ignore
                                                           EXTENSION PrimaryCCPCH-RSCP-Delta
                                                                                                 PRESENCE
                                                                                                            optional },
RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                CRITICALITY ignore
                                                                           EXTENSION Permanent-NAS-UE-Identity PRESENCE optional }
    ID id-UL-CCTrCH-InformationList-RL-AdditionRgstTDD
                                                       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-AdditionRqstTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-CCTrCH-InformationItem-RL-AdditionRqstTDD
                                                       CRITICALITY notify TYPE UL-CCTrCH-InformationItem-RL-AdditionRqstTDD PRESENCE
optional},
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
                             TDD-TPC-UplinkStepSize-LCR
   uplinkStepSizeLCR
                                                          OPTIONAL,
   -- Applicable to 1.28Mcps TDD only
                             ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-RL-AdditionRgstTDD
                                            ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-AdditionRgstTDD} }
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}},
                                 ProtocolIE-Container
   protocolIEs
                                  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
                                                 ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }
RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD
                                                            CRITICALITY ignore TYPE RL-InformationResponseItem-RL-AdditionRspFDD
                                                                                                                                 PRESENCE
mandatory }
RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   rL-Set-ID
                                  RL-Set-ID,
   uRA-Information
                                  URA-Information
                                                     OPTIONAL,
   sAI
                                  SAI,
   qA-Cell
                                  GA-Cell
                                             OPTIONAL,
   gA-AccessPointPosition
                                  GA-AccessPointPosition OPTIONAL,
   received-total-wide-band-power Received-total-wide-band-power,
    secondary-CCPCH-Info
                                  Secondary-CCPCH-Info
                                                            OPTIONAL,
   dl-CodeInformation
                                  DL-CodeInformationList-RL-AdditionRspFDD,
    diversityIndication
                                  DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator
                                      SSDT-SupportIndicator,
```

```
minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR.
    closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power.
    minimumDLTxPower
                                        DL-Power,
    neighbouring-UMTS-CellInformation
                                       Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble
                                        PC-Preamble,
    sRB-Delay
                                        SRB-Delay,
                                        PrimaryCPICH-Power,
    primaryCPICH-Power
                                        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-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                                PRESENCE optional },
DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}
DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                        PRESENCE mandatory }
DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining
                                   Combining-RL-AdditionRspFDD,
    nonCombining
                                    NonCombining-RL-AdditionRspFDD
Combining-RL-AdditionRspFDD ::= SEOUENCE {
    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}},
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}
                                                                                                                         OPTIONAL.
RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD
                                                          CRITICALITY ignore TYPE RL-InformationResponse-RL-AdditionRspTDD PRESENCE optional
    --Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                                      RL-ID,
    uRA-Information
                                      URA-Information
                                                          OPTIONAL,
    sAI
                                      SAI,
   qA-Cell
                                      GA-Cell
                                                  OPTIONAL,
    qA-AccessPointPosition
                                      GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-Info
                                      UL-TimeSlot-ISCP-Info,
   minUL-SIR
                                      UL-SIR,
   maxUL-SIR
                                      UL-SIR,
   maximumAllowedULTxPower
                                      MaximumAllowedULTxPower,
   maximumDLTxPower
                                      DL-Power,
   minimumDLTxPower
                                      DL-Power,
    pCCPCH-Power
                                      PCCPCH-Power,
    timingAdvanceApplied
                                      TimingAdvanceApplied,
    alphaValue
                                      AlphaValue,
    ul-PhysCH-SF-Variation
                                      UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                      SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                      Secondary-CCPCH-Info-TDD
                                                                                     OPTIONAL,
    ul-CCTrCHInformation
                                      UL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                     OPTIONAL,
   dl-CCTrCHInformation
                                      DL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                     OPTIONAL,
   dCH-Information
                                      DCH-Information-RL-AdditionRspTDD
                                                                                     OPTIONAL,
   dSCH-InformationResponse
                                      DSCH-InformationResponse-RL-AdditionRspTDD
                                                                                     OPTIONAL,
    uSCH-InformationResponse
                                      USCH-InformationResponse-RL-AdditionRspTDD
                                                                                     OPTIONAL,
   neighbouring-UMTS-CellInformation
                                      Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                      Neighbouring-GSM-CellInformation OPTIONAL,
                                      ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
RL-InformationResponse-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                         CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                  PRESENCE optional } |
     ID id-HCS-Prio
                             CRITICALITY ignore EXTENSION HCS-Prio
                                                                           PRESENCE optional }.
UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD
UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   ul-DPCH-Information
                                 UL-DPCH-InformationList-RL-AdditionRspTDD
                                                                               OPTIONAL,
                                  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,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
    uL-Timeslot-Information
                                 UL-Timeslot-Information,
                                  ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocoliE-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-AdditionRspTDD
                                                                                                                              PRESENCE
mandatory }
DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD
```

```
DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID.
    dl-DPCH-Information
                                    DL-DPCH-InformationList-RL-AdditionRspTDD
                                                                                     OPTIONAL.
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                            PRESENCE optional \ | -- this is a DCH
    { ID id-CCTrCH-Maximum-DL-Power-RL-AdditionRspTDD
                                                            CRITICALITY ignore
                                                                                     EXTENSION DL-Power
type CCTrCH power
                                                                                                            PRESENCE optional }, -- this is a DCH
    { ID id-CCTrCH-Minimum-DL-Power-RL-AdditionRspTDD
                                                            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 ::= SEOUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
    repetitionLength
                                    RepetitionLength,
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    dL-Timeslot-Information
                                    DL-Timeslot-Information,
                                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication
                                        DiversityIndication-RL-AdditionRspTDD,
    iE-Extensions
                                    ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DCH-Information-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining
                    Combining-RL-AdditionRspTDD,
                   NonCombining-RL-AdditionRspTDD
    nonCombining
Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
```

```
ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
        iE-Extensions
CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        { ID id-DCH-InformationResponse
                                                                                      CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                                                                                                                            PRESENCE optional },
NonCombining-RL-AdditionRspTDD ::= SEQUENCE {
        dCH-InformationResponse
                                                             DCH-InformationResponse,
        iE-Extensions
                                                                      ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
        . . .
NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}
DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
        { ID id-DSCH-InformationListIE-RL-AdditionRspTDD
                                                                                                          CRITICALITY ignore TYPE DSCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                                                                                                                                                    PRESENCE mandatory }
DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD
DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
        dsch-ID
                                                      DSCH-ID,
        transportFormatManagement TransportFormatManagement,
        dSCH-FlowControlInformation
                                                                      DSCH-FlowControlInformation,
                                                 DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
        diversityIndication
        -- diversityIndication present, if CHOICE = nonCombining
                                       ProtocolExtensionContainer { {DSCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
        bindingID
                                                     BindingID OPTIONAL,
        transportLayerAddress TransportLayerAddress OPTIONAL,
                                                      ProtocolExtensionContainer { {DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
       iE-Extensions
DiversityIndication-RL-AdditionRspTDD2-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
 \begin{tabular}{ll} USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container \{\{USCH-InformationListIEs-RL-AdditionRspTDD\}\}\} \\ \begin{tabular}{ll} USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container \{\{USCH-InformationListIEs-RL-AdditionRspTDD\}\}\} \\ \begin{tabular}{ll} USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container \{\{USCH-InformationListIEs-RL-AdditionRspTDD\}\} \\ \begin{tabular}{ll} USCH-InformationListIEs-RL-AdditionRspTDD ::= ProtocolIE-Single-Container \{\{USCH-InformationListIEs-RL-AdditionRspTDD\}\} \\ \begin{tabular}{ll} USCH-InformationRspTDD ::= ProtocolIE-Single-Container \{\{USCH-InformationRspTDD, USCH-InformationRspTDD, USCH-Info
USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-USCH-InformationListIE-RL-AdditionRspTDD
                                                      CRITICALITY ignore TYPE USCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                         PRESENCE mandatory }
USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD
USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   uSCH-ID
                           USCH-ID.
    transportFormatManagement TransportFormatManagement,
   diversityIndication
                           DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
   iE-Extensions
                           ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD
                                                          CRITICALITY ignore
                                                                                            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,
    qA-AccessPointPosition
                               GA-AccessPointPosition OPTIONAL,
    ul-TimeSlot-ISCP-LCR-Info
                               UL-TimeSlot-ISCP-LCR-Info,
   maxUL-SIR
                               UL-SIR,
   minUL-SIR
                               UL-SIR,
   pCCPCH-Power
                               PCCPCH-Power,
   maximumAllowedULTxPower
                               MaximumAllowedULTxPower,
   maximumDLTxPower
                               DL-Power,
   minimumDLTxPower
                               DL-Power,
    alphaValue
                               AlphaValue,
    ul-PhysCH-SF-Variation
                               UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                       SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                       Secondary-LCR-CCPCH-Info-TDD
                                                                                         OPTIONAL,
    ul-CCTrCH-LCR-Information
                                      UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
    dl-CCTrCH-LCR-Information
                                      DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
    dCH-InformationResponse
                                      DCH-InformationResponseList-RL-AdditionRspTDD
                                                                                         OPTIONAL,
                                      DSCH-LCR-InformationResponse-RL-AdditionRspTDD
   dsch-LCR-InformationResponse
                                                                                        OPTIONAL,
    usch-LCR-InformationResponse
                                          USCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                            OPTIONAL,
   neighbouring-UMTS-CellInformation
                                              Neighbouring-UMTS-CellInformation
                                                                                             OPTIONAL,
    neighbouring-GSM-CellInformation
                                              Neighbouring-GSM-CellInformation
                                                                                          OPTIONAL,
                                              iE-Extensions
    OPTIONAL,
    . . .
```

```
RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                   CRITICALITY ignore EXTENSION
                                                                GA-CellAdditionalShapes
                                                                                         PRESENCE optional }
     ID id-HCS-Prio
                                   CRITICALITY ignore EXTENSION
                                                               HCS-Prio
                                                                                         PRESENCE optional }
     ID id-UL-TimingAdvanceCtrl-LCR
                                   CRITICALITY ignore EXTENSION UL-TimingAdvanceCtrl-LCR
                                                                                         PRESENCE optional },
   -- Mandatory for 1.28Mcps TDD only
UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}
UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   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,
   ul-DPCH-LCR-Information
                                   UL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                 OPTIONAL.
   iE-Extensions
                                ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                        CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                               RepetitionPeriod,
                               RepetitionLength,
   repetitionLength
                               TDD-DPCHOffset,
   tDD-DPCHOffset
   uL-TimeslotLCR-Information
                                UL-TimeslotLCR-Information,
                                ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtlEs} } 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 ::= SEQUENCE {
                               CCTrCH-ID.
   dl-DPCH-LCR-Information
                               DL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                  OPTIONAL.
                               ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                              CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod,
   repetitionLength
                                   RepetitionLength,
   tDD-DPCHOffset
                                   TDD-DPCHOffset,
   dL-TimeslotLCR-Information
                                   DL-TimeslotLCR-Information,
   tSTD-Indicator
                                   TSTD-Indicator,
   iE-Extensions
                                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}
DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}
DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
                                                              CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD
mandatory }
DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD
DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   dsch-ID
                           DSCH-ID,
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                           BindingID OPTIONAL,
```

```
transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
   iE-Extensions
                          ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}
USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD
USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   usch-ID
                              USCH-ID,
    transportFormatManagement
                              TransportFormatManagement,
   diversityIndication
                              DiversityIndication-RL-AdditionRspTDD2
                                                                        OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    -- RADIO LINK ADDITION FAILURE FDD
  *****************
RadioLinkAdditionFailureFDD ::= SEQUENCE {
                                                            {{RadioLinkAdditionFailureFDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}
                                                                                                                     OPTIONAL,
RadioLinkAdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD
                                                            CRITICALITY
                                                                            ignore
                                                                                            TYPE CauseLevel-RL-AdditionFailureFDD
           PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                            PRESENCE optional }.
CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
    generalCause
                      GeneralCauseList-RL-AdditionFailureFDD,
   rLSpecificCause
                      RLSpecificCauseList-RL-AdditionFailureFDD,
    . . .
```

```
GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE
    cause
    iE-Extensions
                                                ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                      OPTIONAL.
GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                         OPTIONAL,
    . . .
RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {
{UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                        CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD
                        PRESENCE mandatory }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
                                    RL-ID,
    cause
    iE-Extensions
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL.
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-2)) OF ProtocolIE-Single-Container { SuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                        CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-
AdditionFailureFDD
                        PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
                                        RL-ID,
    rL-Set-ID
                                        RL-Set-ID,
    uRA-Information
                                        URA-Information
                                                            OPTIONAL,
```

```
SAI,
    sAI
    gA-Cell
                                        GA-Cell
                                                    OPTIONAL.
    gA-AccessPointPosition
                                        GA-AccessPointPosition
                                                                    OPTIONAL.
    received-total-wide-band-power
                                        Received-total-wide-band-power,
    secondary-CCPCH-Info
                                        Secondary-CCPCH-Info
                                                                    OPTIONAL.
    dl-CodeInformation
                                        DL-CodeInformationList-RL-AdditionFailureFDD,
                                        DiversityIndication-RL-AdditionFailureFDD.
    diversityIndication
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator
                                        SSDT-SupportIndicator,
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
    closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower.
    maximumDLTxPower
                                        DL-Power,
    minimumDLTxPower
                                        DL-Power,
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
                                        PrimaryCPICH-Power,
    primaryCPICH-Power
                                        PC-Preamble,
    pC-Preamble
    sRB-Delay
                                        SRB-Delay,
                                        ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-GA-CellAdditionalShapes
                                                                                                                 PRESENCE optional } |
                                                    CRITICALITY ignore EXTENSION
                                                                                    GA-CellAdditionalShapes
      ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore EXTENSION
                                                                                    DL-PowerBalancing-ActivationIndicator
                                                                                                                           PRESENCE optional } |
     ID id-HCS-Prio
                                                    CRITICALITY ignore EXTENSION
                                                                                    HCS-Prio
                                                                                                  PRESENCE optional },
DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}
DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
                                                                                         PRESENCE mandatory }
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining
                                    Combining-RL-AdditionFailureFDD,
    nonCombining
                                    NonCombining-RL-AdditionFailureFDD
Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID
                                ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL.
    iE-Extensions
CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    { ID id-DCH-InformationResponse
                                                                                                        PRESENCE optional },
                                            CRITICALITY ignore EXTENSION DCH-InformationResponse
    . . .
```

```
NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                           DCH-InformationResponse,
   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 {
                                                       {{RadioLinkAdditionFailureTDD-IEs}},
                               ProtocolIE-Container
   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 ::= SEQUENCE {
   cause
                           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,
   cause
                            Cause.
                           ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK DELETION REQUEST
  RadioLinkDeletionRequest ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{RadioLinkDeletionRequest-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}
                                                                                                         OPTIONAL.
RadioLinkDeletionRequest-IES RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory },
   . . .
RL-InformationList-RL-DeletionRqst
                                     ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRqst-
IEs} }
RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-DeletionRgst
                                      CRITICALITY notify TYPE RL-Information-RL-DeletionRqst PRESENCE mandatory
RL-Information-RL-DeletionRqst ::= SEQUENCE {
                           RL-ID,
```

```
ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK DELETION RESPONSE
RadioLinkDeletionResponse ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                           {{RadioLinkDeletionResponse-IEs}},
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}
                                                                                                                   OPTIONAL,
RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-CriticalityDiagnostics
                                        CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                            PRESENCE optional },
   . . .
RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION PREPARE FDD
RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
                                                            {{RadioLinkReconfigurationPrepareFDD-IEs}},
   protocolIEs
                                 ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
                                                                                                                           OPTIONAL,
RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                     CRITICALITY reject TYPE AllowedQueuingTime
                                                                                          PRESENCE optional }
     ID id-UL-DPCH-Information-RL-ReconfPrepFDD
                                                        CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                        PRESENCE optional }
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD
                                                        CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                        PRESENCE optional }
     ID id-FDD-DCHs-to-Modify
                                 CRITICALITY reject TYPE FDD-DCHs-to-Modify
                                                                               PRESENCE optional
     ID id-DCHs-to-Add-FDD
                             CRITICALITY reject TYPE DCH-FDD-Information
                                                                               PRESENCE optional
     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
                                    III.-STR
                                                            OPTIONAL,
   minUL-ChannelisationCodeLength MinUL-ChannelisationCodeLength OPTIONAL.
    maxNrOfUL-DPDCHs
                                    MaxNrOfUL-DPCHs
                                                            OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
    ul-PunctureLimit
                                    PunctureLimit
                                                            OPTIONAL,
    t.FCS
                                    TFCS
                                          OPTIONAL.
    ul-DPCCH-SlotFormat
                                    UL-DPCCH-SlotFormat
                                                            OPTIONAL,
    diversityMode
                                    DiversityMode
                                                            OPTIONAL,
    not-Used-sSDT-CellIDLength
                                    NULL
                                                OPTIONAL,
    not-Used-s-FieldLength
                                                    OPTIONAL,
                                    NULL
                                    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 {
    t.FCS
                                    TFCS
                                            OPTIONAL,
    dl-DPCH-SlotFormat
                                    DL-DPCH-SlotFormat
                                                            OPTIONAL,
    nrOfDLchannelisationcodes
                                    NrOfDLchannelisationcodes OPTIONAL,
    tFCI-SignallingMode
                                    TFCI-SignallingMode
                                                            OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
    multiplexingPosition
                                    MultiplexingPosition
                                                                OPTIONAL,
    limitedPowerIncrease
                                    LimitedPowerIncrease
                                                                OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepFDD
                                           ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD
DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
    iE-Extensions
                                    ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
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 ::= SEOUENCE {
                             RL-ID,
   not-Used-sSDT-Indication
                                     NULL
                                                OPTIONAL,
   not-Used-sSDT-CellIdentity
                                 NULL
                                            OPTIONAL.
   transmitDiversityIndicator
                                 TransmitDiversityIndicator
                                                               OPTIONAL.
   -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   . . .
RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DLReferencePower
                                            CRITICALITY ignore EXTENSION DL-Power
                                                                                             PRESENCE optional }
     ID id-RL-Specific-DCH-Info
                                            CRITICALITY ignore EXTENSION RL-Specific-DCH-Info PRESENCE
     ID id-DL-DPCH-TimingAdjustment
                                            CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment 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 },
  RADIO LINK RECONFIGURATION PREPARE TDD
        ******************
RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
                                 ProtocolIE-Container
                                                           {{RadioLinkReconfigurationPrepareTDD-IEs}},
   protocolIEs
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}
   protocolExtensions
                                                                                                                          OPTIONAL,
   . . .
RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedOueuingTime
                                    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
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                            CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional } |
     ID id-TDD-DCHs-to-Modify
                                 CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                               PRESENCE optional
     ID id-DCHs-to-Add-TDD
                              CRITICALITY reject TYPE DCH-TDD-Information
                                                                               PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepTDD
                                             CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD
                                                                                                       PRESENCE optional } |
     ID id-DSCH-ModifyList-RL-ReconfPrepTDD
                                             CRITICALITY reject TYPE DSCH-ModifyList-RL-ReconfPrepTDD
                                                                                                       PRESENCE optional }
     ID id-DSCHs-to-Add-TDD
                                 CRITICALITY reject TYPE DSCH-TDD-Information
     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,
   tFCS
                              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
                                                                    UL-SIR
                                                                               PRESENCE optional } |
   -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR PRESENCE optional
   -- Mandatory for 1.28Mcps TDD, not applicable to 3.84Mcps TDD
UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                    ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD PRESENCE
mandatory }
```

```
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID.
   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
                                                              UL-SIR
                                                                         PRESENCE optional } |
                                                 EXTENSION
   -- This IE shall be applicable for 1.28Mcps TDD only.
   { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR
                                                                                                                     PRESENCE
   -- Applicable to 1.28Mcps TDD only
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
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,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
```

```
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 ::= SEOUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
                              ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                               ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                    CCTrCH-ID,
   t.FCS
                           TFCS
                                     OPTIONAL,
                                               OPTIONAL,
   tFCI-Coding
                          TFCI-Coding
   punctureLimit
                              PunctureLimit
                                                      OPTIONAL,
   cCTrCH-TPCList
                              CCTrCH-TPCModifyList-RL-ReconfPrepTDD
                                                                    OPTIONAL,
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   optional},
   . . .
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
                                  ::= SEOUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
                              ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                        ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD
                                                              CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD PRESENCE
mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEOUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
                                    ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepTDD
                                            ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dch-td
                                DCH-ID,
                                ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
    iE-Extensions
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
                                                                        OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
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
                                                                                TransportLayerAddress
                                           CRITICALITY ignore
                                                                    EXTENSION
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
```

```
DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD
DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID
                                    ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD
USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID
                                        USCH-ID,
    ul-ccTrCHID
                                        CCTrCH-ID
                                                                        OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
    bLER
                                                                        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
                                                                                PRESENCE
                                                                                                                     } |
                                                                    BindingID
                                                                                                 optional
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional }|
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TnlQos
                                        CRITICALITY
                                                        ignore
                                                                    EXTENSION
                                                                                Tnl0os
                                                                                             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
                                                                                         EXTENSION
                                                                CRITICALITY ignore
                                                                                                     PrimaryCCPCH-RSCP PRESENCE optional } |
    { ID id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD
                                                                                                     DL-TimeSlot-ISCP-Info PRESENCE optional } |
                                                                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
                                                                                                            PRESENCE optional |
                                          CRITICALITY reject
                                                                EXTENSION HSDSCH-MACdFlows-Information
                                                                                                       PRESENCE optional } |
     ID id-HSDSCH-MACdFlows-to-Delete
                                          CRITICALITY reject
                                                                EXTENSION HSDSCH-MACdFlows-to-Delete
     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 }
   EXTENSION PrimaryCCPCH-RSCP-Delta PRESENCE
                                                                                                      optional },
RL-Information-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-InformationIE-RL-ReconfPrepTDD
RL-InformationIE-RL-ReconfPrepTDD ::= SEQUENCE {
   rI.-ID
                                   RL-ID,
   rL-Specific-DCH-Info
                                   RL-Specific-DCH-Info
                                   ProtocolExtensionContainer { { RL-InformationIE-RL-ReconfPrepTDD-ExtIEs} }
   iE-Extensions
                                                                                                         OPTIONAL,
   . . .
RL-InformationIE-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION READY FDD
  ····
RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
                                ProtocolIE-Container
                                                        {{RadioLinkReconfigurationReadyFDD-IEs}},
   protocolIEs
                               ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}
   protocolExtensions
                                                                                                                   OPTIONAL,
   . . .
RadioLinkReconfigurationReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE
optional } |
   { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
   . . .
                                            ::= SEOUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-
RL-InformationResponseList-RL-ReconfReadyFDD
RL-ReconfReadyFDD-IEs} }
RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-RL-InformationResponseItem-RL-ReconfReadyFDD
                                                            CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfReadyFDD
                                                                                                                                     PRESENCE
mandatory }
RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE {
                                        RL-ID,
    max-UL-SIR
                                        UL-SIR
                                                        OPTIONAL,
    min-UL-SIR
                                        UL-SIR
                                                        OPTIONAL,
    maximumDLTxPower
                                        DL-Power
                                                        OPTIONAL,
    minimumDLTxPower
                                        DL-Power
                                                        OPTIONAL,
    secondary-CCPCH-Info
                                        Secondary-CCPCH-Info
                                                                    OPTIONAL,
    dl-CodeInformationList
                                        DL-CodeInformationList-RL-ReconfReadyFDD
                                                                                        OPTIONAL,
    dCHInformationResponse
                                        DCH-InformationResponseList-RL-ReconfReadyFDD
                                                                                        OPTIONAL,
    not-Used-dSCHsToBeAddedOrModified
                                       NULL
                                                        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
optional }|
    { ID id-Secondary-CPICH-Information-Change
                                                        CRITICALITY ignore EXTENSION Secondary-CPICH-Information-Change
                                                                                                                                   PRESENCE
optional }.
DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}
DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                        PRESENCE mandatory }
                                                            ::= 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
RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
                                                CRITICALITY ignore
                                                                                                                      PRESENCE optional }
     ID id-HSDSCH-RNTI
                                                                        EXTENSION HSDSCH-RNTI
     ID id-HSDSCH-FDD-Information-Response
                                                                                                                       PRESENCE optional }
                                                CRITICALITY ignore
                                                                        EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                       PRESENCE optional },
     ID id-MAChs-ResetIndicator
                                                CRITICALITY ignore
                                                                        EXTENSION MAChs-ResetIndicator
-- RADIO LINK RECONFIGURATION READY TDD
RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
```

```
ProtocolIE-Container
                                                             {{RadioLinkReconfigurationReadyTDD-IEs}},
   protocolIEs
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}
                                                                                                                            OPTIONAL,
RadioLinkReconfigurationReadyTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                          CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfReadyTDD
                                                                                            PRESENCE optional
    --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
                                  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-InformationList-RL-ReconfReadyTDD OPTIONAL,
   dl-CCTrCH-Information
    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
    . . .
UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                  ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                                  CCTrCH-ID,
   ul-DPCH-AddInformation
                                  UL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                        OPTIONAL,
    --For 3.84Mcps TDD only
    ul-DPCH-ModifyInformation
                                  UL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                            OPTIONAL
    --For 3.84Mcps TDD only
    ul-DPCH-DeleteInformation
                                  UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
    iE-Extensions
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
```

```
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION
                                                                                    UL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD
                PRESENCE optional },
   --For 1.28Mcps TDD only
UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
                              RepetitionPeriod,
   repetitionPeriod
   repetitionLength
                              RepetitionLength,
   tDD-DPCHOffset
                              TDD-DPCHOffset.
   uL-TimeslotLCR-Info
                              UL-TimeslotLCR-Information.
                              ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   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 ::= {
   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
                                 ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR
PRESENCE optional },
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   timeSlot
                                 TimeSlot,
   midambleShiftAndBurstType
                                             MidambleShiftAndBurstType
                                                                               OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
                                                        OPTIONAL,
   uL-Code-Information
                             TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                      OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
```

```
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
                               DPCH-ID,
   tDD-ChannelisationCode
                                                        OPTIONAL,
                               TDD-ChannelisationCode
   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 ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                               CCTrCH-ID,
   dl-DPCH-AddInformation
                               DL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                 OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-ModifyInformation
                               DL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                 OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-DeleteInformation
                               DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                 OPTIONAL,
```

```
ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   DL-DPCH-LCR-InformationAddList-RL-
                                                                              EXTENSION
ReconfReadyTDD
                 PRESENCE optional |
   --For 1.28Mcps TDD only
   { ID id-CCTrCH-Maximum-DL-Power-RL-ReconfReadyTDD
                                                   CRITICALITY ignore EXTENSION DL-Power
                                                                                                   PRESENCE optional } |
   -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
   { ID id-CCTrCH-Minimum-DL-Power-RL-ReconfReadyTDD
                                                                                                   PRESENCE optional },
                                                   CRITICALITY ignore EXTENSION DL-Power
   -- Applicable to 3.84Mcps TDD only, this is a DCH type CCTrCH power
DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= SEQUENCE {
                              RepetitionPeriod,
   repetitionPeriod
   repetitionLength
                              RepetitionLength,
   tDD-DPCHOffset
                              TDD-DPCHOffset,
   dL-TimeslotLCR-Info
                              DL-TimeslotLCR-Information,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                              RepetitionPeriod,
                              RepetitionLength,
   repetitionLength
   tDD-DPCHOffset
                              TDD-DPCHOffset,
   dL-Timeslot-Information
                              DL-Timeslot-Information,
                              ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
```

```
DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEQUENCE
    repetitionPeriod
                                    RepetitionPeriod
                                                                OPTIONAL.
    repetitionLength
                                    RepetitionLength
                                                                OPTIONAL,
    t.DD-DPCHOffset
                                    TDD-DPCHOffset
                                                                OPTIONAL.
    dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                                         OPTIONAL,
    --For 3.84Mcps TDD only
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                            EXTENSION DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                    PRESENCE optional },
    --For 1.28Mcps TDD only
DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR
                                   TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                                OPTIONAL
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    tDD-dL-Code-LCR-Information
                                    TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                                  OPTIONAL.
                                    ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCodeLCR
                                    TDD-ChannelisationCodeLCR
                                                                    OPTIONAL,
    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
                                                                                                                               PRESENCE optional }
                                                                                                                   DL-Power
     ID id-Minimum-DL-Power-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD CRITICALITY ignore EXTENSION DL-Power
                                                                                                                               PRESENCE optional },
DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE
    timeSlot
                                    TimeSlot,
```

```
MidambleShiftAndBurstType
   midambleShiftAndBurstType
                                                                OPTIONAL,
   t.FCI-Presence
                               TFCI-Presence
                                                     OPTIONAL.
   dL-Code-Information
                               TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                     OPTIONAL.
   iE-Extensions
                               ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE
   dPCH-ID
                               DPCH-ID.
   tDD-ChannelisationCode
                               TDD-ChannelisationCode
                                                        OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   PRESENCE optional },
   . . .
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                                ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfReadyTDD
                                                     ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }
DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DCH-InformationResponse
                                   CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                     PRESENCE mandatory
DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                              ::= ProtocolIE-Single-Container { {DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }
DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
```

```
mandatory }
DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEOUENCE {
   dsch-ID
                        DSCH-ID,
   transportFormatManagement TransportFormatManagement,
   dSCH-FlowControlInformation DSCH-FlowControlInformation,
   bindingID
                        BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
   iE-Extensions
                        ProtocolExtensionContainer { {DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCHToBeAddedOrModified-RL-ReconfReadyTDD
                                             ::= ProtocolIE-Single-Container { {USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD}}
}USCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   mandatory }
USCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
   uSCH-ID
                        USCH-ID,
   transportFormatManagement TransportFormatManagement,
   bindingID
                        BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
                        ProtocolExtensionContainer { {USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-RNTI
                                         CRITICALITY ignore
                                                                                                       PRESENCE optional }
                                                              EXTENSION HSDSCH-RNTI
                                         CRITICALITY ignore
                                                                                                       PRESENCE optional }
     ID id-DSCH-RNTI
                                                              EXTENSION DSCH-RNTI
     ID id-HSDSCH-TDD-Information-Response
                                         CRITICALITY ignore
                                                                                                       PRESENCE optional
                                                              EXTENSION HSDSCH-TDD-Information-Response
     ID id-MAChs-ResetIndicator
                                         CRITICALITY ignore
                                                              EXTENSION MAChs-ResetIndicator
                                                                                                       PRESENCE optional }
     ID id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD CRITICALITY ignore EXTENSION Multiple-RL-InformationResponse-RL-
ReconfReadyTDD
              PRESENCE optional },
-- 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 ::= SEOUENCE {
   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 {
                                                       {{RadioLinkReconfigurationFailure-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                                 OPTIONAL,
   . . .
RadioLinkReconfigurationFailure-IES RNSAP-PROTOCOL-IES ::= {
     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,
                                          ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }
   iE-Extensions
                                                                                                                  OPTIONAL,
GeneralCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
   rL-ReconfigurationFailureList-RL-ReconfFailure
                                                     RL-ReconfigurationFailureList-RL-ReconfFailure
                                                     ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs} }
   iE-Extensions
   OPTIONAL,
    . . .
RLSpecificCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-ReconfigurationFailureList-RL-Reconffailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }
RL-ReconfigurationFailure-RL-ReconfFailure-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore TYPE RL-ReconfigurationFailure-RL-ReconfFail PRESENCE mandatory
RL-ReconfigurationFailure-RL-ReconfFail ::= SEQUENCE {
                              RL-ID,
    cause
                                  ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   *****************
-- RADIO LINK RECONFIGURATION CANCEL
__ *********************
RadioLinkReconfigurationCancel ::= SEQUENCE {
                                                            {{RadioLinkReconfigurationCancel-IEs}},
   protocolIEs
                                 ProtocolIE-Container
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
   protocolExtensions
                                                                                                                         OPTIONAL,
RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- RADIO LINK RECONFIGURATION REQUEST FDD
RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
                                                            {{RadioLinkReconfigurationRequestFDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                             OPTIONAL,
   . . .
RadioLinkReconfigurationRequestFDD-IES RNSAP-PROTOCOL-IES ::= {
     PRESENCE optional } |
                                                        CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional }
     ID id-UL-DPCH-Information-RL-ReconfRqstFDD
     ID id-DL-DPCH-Information-RL-ReconfRqstFDD
                                                        CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfigstFDD PRESENCE optional }
     ID id-FDD-DCHs-to-Modify CRITICALITY reject TYPE FDD-DCHs-to-Modify
                                                                               PRESENCE optional
     ID id-DCHs-to-Add-FDD CRITICALITY reject TYPE DCH-FDD-Information
                                                                                PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfRqstFDD
                                             CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstFDD
                                                                                                        PRESENCE optional } |
     ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
    . . .
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
   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 OPTIONAL,
   tFCI-SignallingMode
                                  TFCI-SignallingMode OPTIONAL,
   limitedPowerIncrease
                                  LimitedPowerIncrease
                                                         OPTIONAL,
                                  ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-Information-RL-ReconfRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRqstFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
   dCH-ID
                                  DCH-ID,
   iE-Extensions
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
```

```
DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore EXTENSION RL-ReconfigurationRequestFDD-RL-InformationList
   PRESENCE
              optional}|
     ID id-DL-ReferencePowerInformation
                                                        CRITICALITY ignore EXTENSION DL-ReferencePowerInformation
                                                                                                                       PRESENCE optional } |
     ID id-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
                                                CRITICALITY reject
                                                                       EXTENSION HSDSCH-MACdFlows-Information
                                                                                                                 PRESENCE optional } |
                                                                                                                 PRESENCE optional |
     ID id-HSDSCH-MACdFlows-to-Delete
                                                CRITICALITY reject
                                                                       EXTENSION HSDSCH-MACdFlows-to-Delete
     ID id-HSPDSCH-RL-ID
                                                CRITICALITY reject
                                                                       EXTENSION RL-ID
                                                                                                                 PRESENCE optional },
RL-ReconfigurationRequestFDD-RL-InformationList ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }
RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE
optional
RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
                         RL-ID,
   rL-Specific-DCH-Info
                         RL-Specific-DCH-Info OPTIONAL,
   iE-Extensions
                         ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION REQUEST TDD
RadioLinkReconfigurationRequestTDD ::= SEOUENCE {
                                 ProtocolIE-Container
   protocolIEs
                                                           {{RadioLinkReconfigurationRequestTDD-IEs}},
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}
                                                                                                                          OPTIONAL,
RadioLinkReconfigurationRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedOueuingTime
                                    CRITICALITY reject TYPE AllowedQueuingTime
                                                                                         PRESENCE optional }
    optional } |
```

```
{ ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                        CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD PRESENCE
optional
   { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRastTDD
                                                        CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD PRESENCE
optional } |
   { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                        CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD PRESENCE
optional } |
     ID id-TDD-DCHs-to-Modify
                               CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                          PRESENCE optional
     ID id-DCHs-to-Add-TDD
                            CRITICALITY reject TYPE DCH-TDD-Information
                                                                          PRESENCE optional
    { ID id-DCH-DeleteList-RL-ReconfRqstTDD
                                          CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstTDD
                                                                                                PRESENCE optional },
   . . .
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                 ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
   t FCS
                            TFCS
                                      OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL.
UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget
                         CRITICALITY reject
                                               EXTENSION
                                                             UL-SIR
                                                                        PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
   . . .
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                 ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationDeleteList-RL-ReconfRgstTDD-IEs} }
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                            CCTrCH-ID,
                                ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                 ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
```

```
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IES RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                          CCTrCH-ID,
   tFCS
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                              ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
InformationDeleteList-RL-ReconfRgstTDD-IEs} }
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                          CCTrCH-ID.
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRqstTDD
                                    ::= SEOUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRgstTDD
DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   dCH-ID
   iE-Extensions
                              ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL,
   . . .
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-UnsynchronisedPRESENCE
optional}
    ID id-HSDSCH-MACdFlows-to-Add
                                                            EXTENSION HSDSCH-MACdFlows-Information
                                                                                                      PRESENCE optional |
                                        CRITICALITY reject
    ID id-HSDSCH-MACdFlows-to-Delete
                                                                                                   PRESENCE optional |
                                        CRITICALITY reject
                                                            EXTENSION HSDSCH-MACdFlows-to-Delete
```

```
{ ID id-HSPDSCH-RL-ID
                                               CRITICALITY reject
                                                                                                                    PRESENCE optional },
                                                                      EXTENSION RL-ID
Multiple-RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF RL-ReconfigurationRequestTDD-RL-Information
RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
    rL-Specific-DCH-Info
                          RL-Specific-DCH-Info OPTIONAL,
                           ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-ReconfigurationRequestTDD-RL-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
          id-UL-Synchronisation-Parameters-LCR
                                                          CRITICALITY ignore
                                                                                  EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                                   PRESENCE
    optional
              }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
-- RADIO LINK RECONFIGURATION RESPONSE FDD
  *****************
RadioLinkReconfigurationResponseFDD ::= SEOUENCE {
                                                              {{RadioLinkReconfigurationResponseFDD-IEs}},
    protocolIEs
                                   ProtocolIE-Container
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}
                                                                                                                                  OPTIONAL,
RadioLinkReconfigurationResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfRspFDD
                                                          CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfRspFDD
                                                                                                                                   PRESENCE
optional }
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                PRESENCE optional }.
    . . .
                                               ::= 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 ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfRspFDD
                                                          CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRspFDD
                                                                                                                               PRESENCE
mandatory }
RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
    rI_i - TD
                                   RL-ID,
    max-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
    min-UL-SIR
                                   UL-SIR
                                                   OPTIONAL,
    maximumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
    minimumDLTxPower
                                   DL-Power
                                                   OPTIONAL,
    secondary-CCPCH-Info
                                   Secondary-CCPCH-Info
                                                              OPTIONAL,
    dCHsInformationResponseList
                                   DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
```

```
dL-CodeInformationList-RL-ReconfResp
                                          DL-CodeInformationList-RL-ReconfRspFDD OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator CRITICALITY ignore
                                                                     EXTENSION
                                                                                    DL-PowerBalancing-UpdatedIndicator
                                                                                                                          PRESENCE optional },
                                                     ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }
DCH-InformationResponseList-RL-ReconfRspFDD
DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    ID id-DCH-InformationResponse
                                      CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                           PRESENCE mandatory
DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}
DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FDD-DL-CodeInformation CRITICALITY ignore TYPE FDD-DL-CodeInformation
                                                                                    PRESENCE optional }
RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-RNTI
                                             CRITICALITY ignore
                                                                     EXTENSION HSDSCH-RNTI
                                                                                                                 PRESENCE optional }
     ID id-HSDSCH-FDD-Information-Response
                                             CRITICALITY ignore
                                                                     EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                 PRESENCE optional } |
    ID id-MAChs-ResetIndicator
                                             CRITICALITY ignore
                                                                     EXTENSION MAChs-ResetIndicator
                                                                                                                 PRESENCE optional },
         -- RADIO LINK RECONFIGURATION RESPONSE TDD
  RadioLinkReconfigurationResponseTDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkReconfigurationResponseTDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}
   protocolExtensions
                                                                                                                              OPTIONAL,
RadioLinkReconfigurationResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfRspTDD
                                                                                                                          PRESENCE optional
                                                     CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfRspTDD
    --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.
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
    . . .
RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   max-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
```

```
maximumDLTxPower
                                                    OPTIONAL,
                                    DL-Power
    minimumDLTxPower
                                    DL-Power
                                                    OPTIONAL.
    dCHsInformationResponseList.
                                    DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-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
                                                CCTrCH-ID,
    dl-DPCH-ModifyInformation-LCR
                                                DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD
                                                                                                        OPTIONAL.
    --For 1.28Mcps TDD only
    cCTrCH-Maximum-DL-Power
                                                DL-Power
                                                                        OPTIONAL,
    --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
    cCTrCH-Minimum-DL-Power
                                                DL-Power
                                                                        OPTIONAL,
    --For 3.84Mcps TDD only, this is a DCH type CCTrCH power
    iE-Extensions
                                                ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIEs} }
    . . .
DL-CCTrCH-InformationItem-RL-ReconfRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-DPCH-InformationModifyList-LCR-RL-ReconfRspTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD }}
DL-DPCH-InformationModifyListIEs-LCR-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    {ID id-DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD CRITICALITY ignore TYPE DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD
    PRESENCE optional },
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD ::= SEQUENCE {
  dL-Timeslot-LCR-InformationModifyList-RL-ReconfRqstTDD
                                                                DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD
                                                                                                                             OPTIONAL,
  iE-ExtensionsProtocolExtensionContainer { { DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs} }
                                                                                                                       OPTIONAL,
    . . .
DL-DPCH-InformationModifyItem-LCR-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-LCR-InformationModifyList-RL-ReconfRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-Timeslot-LCR-InformationModifyLitem-RL-
ReconfRspTDD
```

```
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD
                                                ::= SEOUENCE {
   timeSlotLCR
                                     TimeSlotLCR.
   maxPowerLCR
                                     DL-Power
                                                OPTIONAL.
   minPowerLCR
                                     DL-Power
                                                OPTIONAL,
                                     ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
DL-Timeslot-LCR-InformationModifyItem-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
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
                                                                                                      PRESENCE optional }
                                                              EXTENSION HSDSCH-TDD-Information-Response
    ID id-MAChs-ResetIndicator
                                         CRITICALITY ignore
                                                              EXTENSION MAChs-ResetIndicator
                                                                                                      PRESENCE optional }
    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 {
                                                      {{RadioLinkFailureIndication-IEs}},
   protocolIEs
                              ProtocolIE-Container
   protocolExtensions
                              ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}
                                                                                                          OPTIONAL,
RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
   Reporting-Object-RL-FailureInd ::= CHOICE {
   rL
                       RL-RL-FailureInd,
                        RL-Set-RL-FailureInd, --FDD only
   rL-Set
   . . . ,
                       CCTrCH-RL-FailureInd --TDD only
   cCTrCH
```

```
RL-RL-FailureInd
                            ::= SEQUENCE {
    rL-InformationList-RL-FailureInd
                                            RL-InformationList-RL-FailureInd.
                                            ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    iE-Extensions
RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs}
RL-InformationList-RL-FailureInd
RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-FailureInd
                                                CRITICALITY ignore TYPE RL-Information-RL-FailureInd
                                                                                                           PRESENCE mandatory
RL-Information-RL-FailureInd ::= SEQUENCE {
    rL-ID
                                RL-ID,
    cause
                                Cause,
                                    ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-FailureInd
                                ::= SEOUENCE {
    rL-Set-InformationList-RL-FailureInd
                                            RL-Set-InformationList-RL-FailureInd,
                                            ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-FailureInd
                                                ::= SEQUENCE (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 ::= SEOUENCE {
                                    RL-Set-ID,
    rL-Set-ID
    cause
                                    Cause,
                                    ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-FailureInd ::= SEOUENCE {
                                      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
                                                                        TYPE CCTrCH-InformationItem-RL-FailureInd
                                               CRITICALITY
                                                            ignore
   PRESENCE mandatory}
CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE {
   cCTrCH-ID
                                      CCTrCH-ID,
   cause
                                      iE-Extensions
                                                                                                       OPTIONAL,
CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK PREEMPTION REQUIRED INDICATION
  *******************
RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
                            ProtocolIE-Container
                                                  {{RadioLinkPreemptionRequiredIndication-IEs}},
   protocolIEs
                            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
   iE-Extensions
                                         ProtocolExtensionContainer { RL-SetItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
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-Rqst 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 ::= {
   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
                                     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-
PhyChReconfRqstTDD
                        PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
UL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                             OPTIONAL.
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    uL-Code-LCR-Information
                                    TDD-UL-Code-LCR-Information
                                                                     OPTIONAL,
                                    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,
    t.FCI-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
                                                                              PRESENCE optional }
     ID id-GA-Cell
                               CRITICALITY ignore TYPE GA-Cell
     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 } |
                                              CRITICALITY ignore TYPE ClosedLoopModel-SupportIndicator PRESENCE mandatory } |
     ID id-ClosedLoopModel-SupportIndicator
     ID id-L3-Information
                                       CRITICALITY ignore TYPE L3-Information
                                                                                         PRESENCE mandatory } |
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                               PRESENCE optional }
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                               PRESENCE optional }
     ID id-URA-Information
                                          CRITICALITY ignore TYPE URA-Information
                                                                                                  PRESENCE optional },
UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::=
     ID id-GA-CellAdditionalShapes
                                          CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
     ID id-DPC-Mode-Change-SupportIndicator
                                                                                  DPC-Mode-Change-SupportIndicator
                                                                                                                      PRESENCE optional } |
                                              CRITICALITY ignore EXTENSION
     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 ::= SEQUENCE {
                                                              {{UplinkSignallingTransferIndicationTDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
                                   ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}
   protocolExtensions
                                                                                                                                   OPTIONAL.
UplinkSignallingTransferIndicationTDD-IEs RNSAP-PROTOCOL-IES ::= -
     ID id-UC-ID
                                                                                  PRESENCE mandatory }
                                   CRITICALITY ignore TYPE UC-ID
     ID id-SAI
                                                                              PRESENCE mandatory }
                               CRITICALITY ignore TYPE SAI
     ID id-GA-Cell
                               CRITICALITY ignore TYPE GA-Cell
                                                                              PRESENCE optional }
                                   CRITICALITY ignore TYPE C-RNTI
                                                                                  PRESENCE mandatory
     ID id-C-RNTI
     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 }
                                          CRITICALITY ignore TYPE URA-Information
                                                                                                  PRESENCE optional },
     ID id-URA-Information
```

```
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 {
                                                         {{DownlinkSignallingTransferRequest-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}
                                                                                                                     OPTIONAL
   . . .
DownlinkSignallingTransferRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-C-ID
                                CRITICALITY ignore TYPE C-ID
                                                                           PRESENCE mandatory }
   -- May be a GERAN cell identifier
    ID id-D-RNTI
                                CRITICALITY ignore TYPE D-RNTI
                                                                            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 ::= SEQUENCE {
                                                         {{RelocationCommit-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{RelocationCommit-Extensions}}
                                                                                                      OPTIONAL,
   . . .
RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                CRITICALITY ignore TYPE D-RNTI
                                                                           PRESENCE optional } |
     PRESENCE optional },
```

```
RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- PAGING REOUEST
__ *********************
PagingRequest ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{PagingRequest-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{PagingRequest-Extensions}}
                                                                                                OPTIONAL,
PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
                                      CRITICALITY ignore TYPE PagingArea-PagingRgst
     ID id-PagingArea-PagingRgst
                                                                                     PRESENCE mandatory } |
     ID id-SRNC-ID
                                                                                            -- May be a BSC-Id.
                               CRITICALITY ignore TYPE RNC-ID
                                                                       PRESENCE mandatory }
                                                            PRESENCE mandatory
     ID id-S-RNTI
                              CRITICALITY ignore TYPE S-RNTI
                               CRITICALITY ignore TYPE IMSI
                                                                        PRESENCE mandatory }
     ID id-IMSI
    ID id-DRXCycleLengthCoefficient
                                      CRITICALITY ignore TYPE DRXCycleLengthCoefficient
                                                                                                  PRESENCE mandatory
                                    CRITICALITY ignore TYPE CNOriginatedPage-PagingRqst
   { ID id-CNOriginatedPage-PagingRqst
                                                                                                  PRESENCE optional
PagingArea-PagingRqst ::= CHOICE {
   uRA
                        URA-PagingRgst, -- May be a GRA-ID.
   cell
                        Cell-PagingRgst, -- UTRAN only
   . . .
URA-PagingRqst ::= SEQUENCE {
   uRA-ID
                            URA-ID,
   iE-Extensions
                           ProtocolExtensionContainer { { URAItem-PagingRqst-ExtIEs} } OPTIONAL,
URAItem-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Cell-PagingRqst ::= SEQUENCE {
   c-ID
   iE-Extensions
                           ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs} } OPTIONAL,
CellItem-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNOriginatedPage-PagingRqst::= SEQUENCE {
```

```
pagingCause
                            PagingCause,
   cNDomainType
                            CNDomainType,
   pagingRecordType
                            PagingRecordType.
   iE-Extensions
                            ProtocolExtensionContainer { { CNOriginatedPage-PagingRgst-ExtIEs} } OPTIONAL,
CNOriginatedPage-PagingRgst-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT INITIATION REQUEST
  ******************
DedicatedMeasurementInitiationRequest ::= SEQUENCE {
                                ProtocolIE-Container
                                                         {{DedicatedMeasurementInitiationRequest-IEs}},
   protocolIEs
                                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 }
                                       CRITICALITY reject TYPE FNReportingIndicator
     ID id-CFNReportingIndicator
                                                                                        PRESENCE mandatory
   { ID id-CFN
                                       CRITICALITY reject TYPE CFN
                                                                                        PRESENCE optional
DedicatedMeasurementObjectType-DM-Rgst ::= CHOICE {
   rL
                         RL-DM-Rast,
   rLS
                         RL-Set-DM-Rgst,
   allRL
                         All-RL-DM-Rqst,
   allRLS
                         All-RL-Set-DM-Rgst,
   . . .
RL-DM-Rqst ::= SEQUENCE {
   rL-InformationList-DM-Rgst
                                RL-InformationList-DM-Rgst,
   iE-Extensions
                                ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
```

```
RL-InformationList-DM-Rgst
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rgst-IEs} }
RL-Information-DM-Rgst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rgst
                                            CRITICALITY reject TYPE RL-InformationItem-DM-Rqst
                                                                                                    PRESENCE mandatory }
RL-InformationItem-DM-Rqst ::= SEOUENCE {
    rL-ID
                               RL-ID,
                               DPCH-ID
    dPCH-ID
                                            OPTIONAL,
                                    ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSSICH-Info-DM-Rgst
                                   CRITICALITY reject
                                                                                                                      PRESENCE optional },
                                                                    EXTENSION HSSICH-Info-DM-Rgst
    -- TDD only
HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID
RL-Set-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst RL-Set-InformationList-DM-Rqst,
    iE-Extensions
                                    ProtocolExtensionContainer { { RL-SetItem-DM-Rgst-ExtIEs} } OPTIONAL,
RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rgst
                                             ::= SEOUENCE (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
                                    ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
All-RL-DM-Rgst ::= NULL
All-RL-Set-DM-Rgst ::= NULL
```

```
DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-PartialReportingIndicator
                                     CRITICALITY ignore
                                                                        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 }
     CRITICALITY ignore TYPE CriticalityDiagnostics
   { ID id-CriticalityDiagnostics
                                                                                    PRESENCE optional },
   . . .
DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
   rLs
                       RL-DM-Rsp,
   rLS
                       RL-Set-DM-Rsp,
   allRL
                       RL-DM-Rsp,
   allRLS
                       RL-Set-DM-Rsp,
RL-DM-Rsp ::= SEOUENCE {
   rL-InformationList-DM-Rsp
                              RL-InformationList-DM-Rsp,
   iE-Extensions
                               ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rsp ::= SEOUENCE {
   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
    dPCH-ID
                               DPCH-ID
                                                   OPTIONAL,
    dedicatedMeasurementValue
                                       DedicatedMeasurementValue,
                               CFN
                                                   OPTIONAL,
    iE-Extensions
                                   ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-HSSICH-Info-DM
                               CRITICALITY reject
                                                               EXTENSION HS-SICH-ID
                                                                                          PRESENCE optional },
    -- TDD only
    . . .
RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-IEs} }
RL-Set-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp
                                               CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rsp
                                                                                                        PRESENCE mandatory
RL-Set-InformationItem-DM-Rsp ::= SEOUENCE {
    rL-Set-ID
                                   RL-Set-ID,
    dedicatedMeasurementValue
                                   DedicatedMeasurementValue,
                                   ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT INITIATION FAILURE
   *****************
DedicatedMeasurementInitiationFailure ::= SEQUENCE {
                                                              {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolIEs
                                   ProtocolIE-Container
   protocolExtensions
                                   ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}
                                                                                                                                    OPTIONAL,
```

```
DedicatedMeasurementInitiationFailure-IES RNSAP-PROTOCOL-IES ::= {
                                CRITICALITY ignore TYPE MeasurementID
     ID id-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,
    allRLS
                           RL-Set-DM-Fail,
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,
                                   ProtocolExtensionContainer { { RLItem-DM-Fail-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RLItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Fail ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail RL-Set-Unsuccessful-InformationRespList-DM-Fail,
    rL-Set-successful-InformationRespList-DM-Fail RL-Set-Successful-InformationRespList-DM-Fail
                                                                                                       OPTIONAL,
                                   ProtocolExtensionContainer { { RL-SetItem-DM-Fail-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Unsuccessful-InformationRespList-DM-Fail
                                                   ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail
                                                     CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail
                                                                                                                           PRESENCE mandatory }
RL-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
   rL-ID
                               RL-ID,
    individualcause
                               Cause OPTIONAL,
    iE-Extensions
                               ProtocolExtensionContainer { {RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
```

```
RL-Unsuccessful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Successful-InformationRespList-DM-Fail
                                                  ::= SEOUENCE (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,
    iE-Extensions
                               ProtocolExtensionContainer { {RL-Successful-InformationItem-DM-Fail-ExtIEs} } OPTIONAL,
RL-Successful-InformationItem-DM-Fail-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                               EXTENSION HS-SICH-ID
    {ID id-HSSICH-Info-DM
                               CRITICALITY reject
                                                                                           PRESENCE optional },
    -- TDD only
    . . .
RL-Set-Unsuccessful-InformationRespList-DM-Fail
                                                           ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-
Unsuccessful-InformationResp-DM-Fail-IEs} }
RL-Set-Unsuccessful-InformationResp-DM-Fail-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                         CRITICALITY ignore TYPE RL-Set-Unsuccessful-InformationItem-DM-Fail
                                                                                                                                    PRESENCE
mandatory }
RL-Set-Unsuccessful-InformationItem-DM-Fail ::= SEQUENCE {
    rL-Set-ID
                                   RL-Set-ID,
    individualcause
                                   Cause
                                               OPTIONAL,
                                   ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Set-Unsuccessful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-Successful-InformationRespList-DM-Fail
                                                           ::= SEQUENCE (SIZE (1..maxNrOfRLSets-1)) OF ProtocolIE-Single-Container { {RL-Set-
Successful-InformationResp-DM-Fail-IEs} }
RL-Set-Successful-InformationResp-DM-Fail-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-Successful-InformationItem-DM-Fail
                                                           CRITICALITY ignore TYPE RL-Set-Successful-InformationItem-DM-Fail
                                                                                                                                 PRESENCE
mandatory }
```

```
RL-Set-Successful-InformationItem-DM-Fail ::= SEQUENCE {
   rL-Set-ID
                             RL-Set-ID.
   dedicatedMeasurementValue
                             DedicatedMeasurementValue.
   CFN
                                                    OPTIONAL,
                             ProtocolExtensionContainer { {RL-Set-Successful-InformationItem-DM-Failns-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Set-Successful-InformationItem-DM-Failns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT REPORT
  DedicatedMeasurementReport ::= SEQUENCE {
                                                   {{DedicatedMeasurementReport-IEs}},
   protocolIEs
                             ProtocolIE-Container
                             ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
   protocolExtensions
                                                                                                    OPTIONAL,
   . . .
DedicatedMeasurementReport-IES RNSAP-PROTOCOL-IES ::= {
    ID id-MeasurementID
                                CRITICALITY ignore TYPE MeasurementID
                                                                          PRESENCE mandatory } |
   DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
                      RL-DM-Rprt,
   rLS
                      RL-Set-DM-Rprt,
   allRL
                      RL-DM-Rprt,
   allRLS
                      RL-Set-DM-Rprt,
RL-DM-Rprt ::= SEQUENCE {
   rL-InformationList-DM-Rprt
                             RL-InformationList-DM-Rprt,
   iE-Extensions
                             ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rprt ::= SEQUENCE {
   rL-Set-InformationList-DM-Rprt RL-Set-InformationList-DM-Rprt,
   iE-Extensions
                             . . .
```

```
RL-SetItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                      ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }
RL-InformationList-DM-Rprt
RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-DM-Rprt
                                      CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt
                                                                                        PRESENCE mandatory }
RL-InformationItem-DM-Rprt ::= SEQUENCE {
   rL-ID
                            RL-ID.
   dPCH-ID
                            DPCH-ID
                                              OPTIONAL.
   dedicatedMeasurementValueInformation
                                      DedicatedMeasurementValueInformation,
                               ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   {ID id-HSSICH-Info-DM-Rprt
                                                                                     PRESENCE optional },
                               CRITICALITY ignore
                                                            EXTENSION HS-SICH-ID
   -- TDD only
   . . .
RL-Set-InformationList-DM-Rprt
                                          ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rprt-IEs} }
RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory
RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
                               RL-Set-ID,
   dedicatedMeasurementValueInformation DedicatedMeasurementValueInformation,
                               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 ::= SEQUENCE {
                                                            {{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
                                                                                PRESENCE mandatory },
                                  CRITICALITY ignore TYPE Cause
    . . .
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
                          RL-DM-Fail-Ind,
   rLS
                          RL-Set-DM-Fail-Ind,
   allRL
                          RL-DM-Fail-Ind,
   allRLS
                          RL-Set-DM-Fail-Ind,
RL-DM-Fail-Ind ::= SEQUENCE {
   rL-unsuccessful-InformationRespList-DM-Fail-Ind
                                                     RL-Unsuccessful-InformationRespList-DM-Fail-Ind,
                                                     ProtocolExtensionContainer { { RLItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-Set-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-unsuccessful-InformationRespList-DM-Fail-Ind
                                                            RL-Set-Unsuccessful-InformationRespList-DM-Fail-Ind,
                                                            ProtocolExtensionContainer { { RL-SetItem-DM-Fail-Ind-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-DM-Fail-Ind-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Unsuccessful-InformationRespList-DM-Fail-Ind
                                                     ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Unsuccessful-
InformationResp-DM-Fail-Ind-IEs} }
RL-Unsuccessful-InformationResp-DM-Fail-Ind-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                           CRITICALITY ignore TYPE RL-Unsuccessful-InformationItem-DM-Fail-Ind
                                                                                                                                     PRESENCE
mandatory }
RL-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
                               RL-ID,
    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 PRESENCE
mandatory }
RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind ::= SEQUENCE {
    rL-Set-ID
                                   RL-Set-ID.
    individualcause
                                               OPTIONAL,
                                    ProtocolExtensionContainer { {RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Set-Unsuccessful-InformationItem-DM-Fail-Indns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
```

```
CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{CommonTransportChannelResourcesReleaseRequest-IEs}},
                              ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
   protocolExtensions
OPTIONAL,
   . . .
CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
                              CRITICALITY ignore TYPE D-RNTI
   { ID id-D-RNTI
                                                                        PRESENCE mandatory },
   . . .
CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON TRANSPORT CHANNEL RESOURCES REQUEST
  *****************
CommonTransportChannelResourcesRequest ::= SEQUENCE
   protocolIEs
                                                      {{CommonTransportChannelResourcesRequest-IEs}},
   protocolExtensions
                              ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}
                                                                                                           OPTIONAL,
CommonTransportChannelResourcesRequest-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-D-RNTI
                              CRITICALITY reject TYPE D-RNTI
                                                                        PRESENCE mandatory
    ID id-C-ID
                              CRITICALITY reject TYPE C-ID
                                                                        PRESENCE optional
     PRESENCE mandatory } |
   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
                                                                    TransportLayerAddress
                                     CRITICALITY ignore
                                                          EXTENSION
                                                                                           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
                                   CRITICALITY ignore TYPE C-RNTI
                                                                                   PRESENCE optional
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
    PRESENCE mandatory } |
     ID id-TransportLayerAddress
                                           CRITICALITY ignore TYPE TransportLayerAddress
                                                                                                 PRESENCE optional } |
     ID id-BindingID
                                   CRITICALITY ignore TYPE BindingID
                                                                                       PRESENCE optional }
    ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                 PRESENCE optional },
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE
    fACH-FlowControlInformation
                                   FACH-FlowControlInformation-CTCH-ResourceRspFDD,
                                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID
                               CRITICALITY ignore
                                                       EXTENSION C-ID
                                                                               PRESENCE mandatory },
    . . .
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
CommonTransportChannelResourcesResponseTDD ::= SEOUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                               {{CommonTransportChannelResourcesResponseTDD-IEs}},
                                   ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}
   protocolExtensions
                                                                                                                              OPTIONAL,
CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                   CRITICALITY ignore TYPE S-RNTI
                                                                                   PRESENCE mandatory
     ID id-C-RNTI
                                   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-TransportLaverAddress
                                        CRITICALITY ignore TYPE TransportLayerAddress
                                                                                         PRESENCE optional } |
                                                                                PRESENCE optional }
     ID id-BindingID
                                CRITICALITY ignore TYPE BindingID
    { 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 {
                                ProtocolIE-Container
   protocolIEs
                                                         {{CommonTransportChannelResourcesFailure-IEs}},
                                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 {
   protocolIEs
                                                      {{CompressedModeCommand-IEs}},
                              ProtocolIE-Container
                              ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}
   protocolExtensions
                                                                                                    OPTIONAL,
CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-Active-Pattern-Sequence-Information
                                            CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                                 PRESENCE mandatory },
CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- ERROR INDICATION
__ *********************
ErrorIndication ::= SEQUENCE {
                              ProtocolIE-Container
                                                     {{ErrorIndication-IEs}},
   protocolIEs
   protocolExtensions
                              ProtocolExtensionContainer {{ErrorIndication-Extensions}}
                                                                                               OPTIONAL,
ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-Cause
                              CRITICALITY ignore TYPE Cause
                                                                       PRESENCE optional }
   { ID id-CriticalityDiagnostics
                                     CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                  PRESENCE optional },
ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-S-RNTI
                                                                              PRESENCE optional } |
                       CRITICALITY ignore EXTENSION S-RNTI
   { ID id-D-RNTI
                              CRITICALITY ignore EXTENSION D-RNTI
                                                                              PRESENCE optional },
    *****************
-- COMMON MEASUREMENT INITIATION REQUEST
  *****************
CommonMeasurementInitiationReguest ::= SEQUENCE {
                                           {{CommonMeasurementInitiationRequest-IEs}},
   protocolIEs
                      ProtocolIE-Container
   protocolExtensions
                     ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}
                                                                                             OPTIONAL,
```

```
CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID
           id-MeasurementID
                                                            CRITICALITY reject
                                                                                         TYPE
                                                                                                 Measurement.ID
                                                                                                                                    PRESENCE
    mandatory } |
    { ID
            id-CommonMeasurementObjectType-CM-Rgst
                                                            CRITICALITY reject
                                                                                         TYPE
                                                                                                 CommonMeasurementObjectType-CM-Rgst
                                                                                                                                          PRESENCE
    mandatory } |
    { ID
           id-CommonMeasurementType
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                 CommonMeasurementType
                                                                                                                                    PRESENCE
    mandatory } |
           id-MeasurementFilterCoefficient
                                                                                         TYPE
                                                                                                 MeasurementFilterCoefficient
     ID
                                                            CRITICALITY reject
                                                                                                                                    PRESENCE optional
    -- UTRAN only
    { ID
            id-ReportCharacteristics
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                 ReportCharacteristics
                                                                                                                                    PRESENCE
    mandatory } |
    { ID
            id-SFNReportingIndicator
                                                                                                 FNReportingIndicator
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                                                    PRESENCE
    mandatory
     ID
           id-SFN
                                                                                         TYPE
                                                                                                 SFN
                                                             CRITICALITY reject
                                                                                                                                    PRESENCE optional
    -- UTRAN only
           id-CommonMeasurementAccuracy
                                                            CRITICALITY reject
                                                                                         TYPE
                                                                                                 CommonMeasurementAccuracy
                                                                                                                                    PRESENCE optional
    -- 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
    timeSlotLCR
                                    TimeSlotLCR
                                                     OPTIONAL,
                                                                --1.28Mcps TDD only
                                                    NeighbouringCellMeasurementInfo
    neighbouringCellMeasurementInformation
                                                                                         OPTIONAL,
    -- UTRAN only
    iE-Extensions
                                    ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs} }
                                                                                                   OPTIONAL,
NeighbouringCellMeasurementInfo ::= SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
        CHOICE {
                neighbouringFDDCellMeasurementInformation
                                                                NeighbouringFDDCellMeasurementInformation,
                neighbouringTDDCellMeasurementInformation
                                                                NeighbouringTDDCellMeasurementInformation,
                extension-neighbouringCellMeasurementInformation
                                                                     Extension-neighbouringCellMeasurementInformation
```

```
::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}
Extension-neighbouringCellMeasurementInformation
Extension-neighbouringCellMeasurementInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR
                                                          CRITICALITY reject TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory },
   . . .
CellItem-CM-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   ****************
  COMMON MEASUREMENT INITIATION RESPONSE
CommonMeasurementInitiationResponse ::= SEQUENCE {
                                                   {{CommonMeasurementInitiationResponse-IEs}},
   protocolIEs
                           ProtocolIE-Container
   protocolExtensions
                           ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}
                                                                                                           OPTIONAL,
    . . .
CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID
           id-MeasurementID
                                                      CRITICALITY ignore
                                                                                                                               PRESENCE
                                                                                  TYPE
                                                                                          Measurement.ID
   mandatory } |
     ID
           id-CommonMeasurementObjectType-CM-Rsp
                                                      CRITICALITY ignore
                                                                                  TYPE
                                                                                          CommonMeasurementObjectType-CM-Rsp
                                                                                                                                PRESENCE optional
     ID
           id-SFN
                                                       CRITICALITY ignore
                                                                                  TYPE
                                                                                          SFN
                                                                                                                                PRESENCE optional
    -- UTRAN only
     ID
           id-CriticalityDiagnostics
                                                      CRITICALITY ignore
                                                                                  TYPE
                                                                                          CriticalityDiagnostics
                                                                                                                                PRESENCE optional
     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 ::= SEOUENCE {
                                               CommonMeasurementValue,
   commonMeasurementValue
   iE-Extensions
                                               ProtocolExtensionContainer { CellItem-CM-Rsp-ExtIEs} }
```

```
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
     ID
          id-Cause
                                       CRITICALITY
                                                     ignore
                                                                    TYPE
                                                                           Cause
                                                                                                  PRESENCE mandatory
   { ID
          id-CriticalityDiagnostics
                                       CRITICALITY
                                                     ignore
                                                                    TYPE
                                                                           CriticalityDiagnostics
                                                                                                  PRESENCE optional },
   . . .
CommonMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON MEASUREMENT REPORT
  *****************
CommonMeasurementReport ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{CommonMeasurementReport-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}
                                                                                       OPTIONAL,
CommonMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                                  CRITICALITY ignore
                                                                           TYPE
                                                                                  MeasurementID
                                                                                                               PRESENCE mandatory
          id-CommonMeasurementObjectType-CM-Rprt
                                                                                  CommonMeasurementObjectType-CM-Rprt PRESENCE
   { ID
                                                  CRITICALITY ignore
                                                                           TYPE
   mandatory } |
         id-SFN
                                                                                                            PRESENCE optional },
   { ID
                                                  CRITICALITY ignore
                                                                           TYPE
   -- UTRAN only
   . . .
CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
```

```
cell
                               Cell-CM-Rprt,
Cell-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
                               ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}
   iE-Extensions
                                                                                      OPTIONAL,
   . . .
CellItem-CM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
       COMMON MEASUREMENT TERMINATION REQUEST
  ******************
CommonMeasurementTerminationRequest ::= SEQUENCE {
                        ProtocolIE-Container
                                              {{CommonMeasurementTerminationRequest-IEs}},
   protocolIEs
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}
CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-MeasurementID
                                   CRITICALITY
                                                                   TYPE
                                                                          MeasurementID
                                                                                           PRESENCE mandatory },
CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
  COMMON MEASUREMENT FAILURE INDICATION
__ *******************************
CommonMeasurementFailureIndication ::= SEQUENCE {
                                              {{CommonMeasurementFailureIndication-IEs}},
   protocolIEs
                        ProtocolIE-Container
                            ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                   CRITICALITY ignore
                                                            TYPE
                                                                   MeasurementID
                                                                                      PRESENCE mandatory
                                   CRITICALITY ignore
    ID
          id-Cause
                                                            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
                                                                                      InformationExchangeID
                                                                               TYPE
                                                                                                                       PRESENCE mandatory
           id-InformationExchangeObjectType-InfEx-Rqst
                                                                                      InformationExchangeObjectType-InfEx-Rqst
    { ID
                                                        CRITICALITY reject
                                                                               TYPE
                                                                                                                                PRESENCE
   mandatory } |
           id-InformationType
    { ID
                                                        CRITICALITY reject
                                                                               TYPE
                                                                                      InformationType
                                                                                                                        PRESENCE mandatory
     ID
           id-InformationReportCharacteristics
                                                        CRITICALITY reject
                                                                               TYPE
                                                                                      InformationReportCharacteristics
                                                                                                                       PRESENCE mandatory
    },
   . . .
InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
InformationExchangeObjectType-InfEx-Rgst ::= CHOICE {
   cell
                                 Cell-InfEx-Rost,
   . . .
Cell-InfEx-Rqst ::= SEQUENCE {
   c-ID
                                 C-ID, --May be a GERAN cell identifier
                                 ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }
   iE-Extensions
                                                                                              OPTIONAL,
CellItem-InfEx-Rast-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE INITIATION RESPONSE
```

```
__ *********************
InformationExchangeInitiationResponse ::= SEOUENCE
    protocolIEs
                           ProtocolIE-Container
                                                   {{InformationExchangeInitiationResponse-IEs}},
   protocolExtensions
                           ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}
                                                                                                              OPTIONAL.
InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
           id-InformationExchangeID
                                                           CRITICALITY ignore
                                                                                      TYPE
                                                                                              InformationExchangeID
                                                                                                                                PRESENCE
    mandatory } |
    { ID
           id-InformationExchangeObjectType-InfEx-Rsp
                                                           CRITICALITY ignore
                                                                                      TYPE
                                                                                              InformationExchangeObjectType-InfEx-Rsp
                                                                                                                                         PRESENCE
    optional
     ID
           id-CriticalityDiagnostics
                                                           CRITICALITY ignore
                                                                                      TYPE
                                                                                              CriticalityDiagnostics
                                                                                                                                PRESENCE optional
    },
InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell
                               Cell-InfEx-Rsp.
Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue
                                   RequestedDataValue,
                                   ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }
    iE-Extensions
                                                                                                   OPTIONAL,
    . . .
CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE INITIATION FAILURE
InformationExchangeInitiationFailure ::= SEQUENCE {
    protocolIEs
                           ProtocolIE-Container
                                                   {{InformationExchangeInitiationFailure-IEs}},
   protocolExtensions
                           ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}
                                                                                                              OPTIONAL,
InformationExchangeInitiationFailure-IES RNSAP-PROTOCOL-IES ::= {
     ID
           id-InformationExchangeID
                                                   CRITICALITY
                                                                   ignore
                                                                                   TYPE
                                                                                          InformationExchangeID
                                                                                                                          PRESENCE mandatory
     ID
           id-Cause
                                                                                   TYPE
                                                                                                                          PRESENCE mandatory
                                                   CRITICALITY
                                                                   ignore
                                                                                          Cause
           id-CriticalityDiagnostics
     ID
                                                   CRITICALITY
                                                                   ignore
                                                                                          CriticalityDiagnostics
                                                                                                                          PRESENCE optional },
```

```
InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- INFORMATION REPORT
InformationReport ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                            {{InformationReport-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{InformationReport-Extensions}}
                                                                                    OPTIONAL,
InformationReport-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-InformationExchangeID
                                                    CRITICALITY ignore
                                                                             TYPE
                                                                                    InformationExchangeID
                                                                                                                          PRESENCE
   mandatory } |
   { ID id-InformationExchangeObjectType-InfEx-Rprt
                                                                                    InformationExchangeObjectType-InfEx-Rprt
                                                    CRITICALITY ignore
                                                                             TYPE
                                                                                                                          PRESENCE
   mandatory },
InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
   cell
                               Cell-InfEx-Rprt,
   . . .
Cell-InfEx-Rprt ::= SEQUENCE {
   requestedDataValueInformation RequestedDataValueInformation,
   iE-Extensions
                               ProtocolExtensionContainer {{ CellItem-InfEx-Rprt-ExtIEs }}
                                                                                        OPTIONAL,
   . . .
CellItem-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE TERMINATION REQUEST
__ **********************************
```

```
InformationExchangeTerminationRequest ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{InformationExchangeTerminationReguest-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
                                                                                                  OPTIONAL.
InformationExchangeTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                                                InformationExchangeID
                                                                                                          PRESENCE mandatory },
InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   INFORMATION EXCHANGE FAILURE INDICATION
  InformationExchangeFailureIndication ::= SEQUENCE {
                                             {{InformationExchangeFailureIndication-IEs}},
   protocolIEs
                        ProtocolIE-Container
                           ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
   . . .
InformationExchangeFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                         CRITICALITY ignore
                                                                  TYPE
                                                                         InformationExchangeID
                                                                                                  PRESENCE mandatory
    ID
          id-Cause
                                         CRITICALITY ignore
                                                                  TYPE
                                                                         Cause
                                                                                                  PRESENCE mandatory
InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RESET REQUEST
  ******************
ResetRequest ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{ResetRequest-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{ResetRequest-Extensions}}
                                                                             OPTIONAL,
ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-RNC-ID
                  CRITICALITY reject TYPE RNC-ID
                                                           PRESENCE mandatory}
   { ID id-ResetIndicator
                           CRITICALITY reject
                                                                                   mandatory },
                                                TYPE ResetIndicator
                                                                         PRESENCE
   . . .
```

```
ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
ResetIndicator ::= CHOICE {
    context
                    ContextList-Reset,
    all-contexts
                        NULL,
    contextGroup
                    ContextGroupList-Reset
ContextList-Reset ::= SEQUENCE
    contextInfoList-Reset
                                ContextInfoList-Reset,
    iE-Extensions
                                            ProtocolExtensionContainer { {ContextItem-Reset-ExtIEs} }
                                                                                                           OPTIONAL,
ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}
ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
    {ID id-ContextInfoItem-Reset
                                        CRITICALITY reject
                                                                                                 PRESENCE mandatory }
                                                                TYPE ContextInfoItem-Reset
ContextInfoItem-Reset ::= SEQUENCE {
    contextType-Reset
                                ContextType-Reset,
    iE-Extensions
                                ProtocolExtensionContainer { { ContextInfoItem-Reset-ExtIEs} } OPTIONAL,
    . . .
ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextType-Reset ::= CHOICE {
    sRNTI
                    S-RNTI,
    dRNTI
                    D-RNTI,
    . . .
ContextGroupList-Reset ::= SEQUENCE {
    contextGroupInfoList-Reset
                                    ContextGroupInfoList-Reset,
                                    ProtocolExtensionContainer { (ContextGroupItem-Reset-ExtIEs) }
    iE-Extensions
                                                                                                        OPTIONAL,
ContextGroupItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
ContextGroupInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContextGroup)) OF ProtocolIE-Single-Container {{ ContextGroupInfoItemIE-Reset }}
ContextGroupInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
   {ID id-ContextGroupInfoItem-Reset
                                       CRITICALITY reject
                                                            TYPE ContextGroupInfoItem-Reset
                                                                                            PRESENCE mandatory }
ContextGroupInfoItem-Reset ::= SEOUENCE {
   s-RNTI-Group
                            S-RNTI-Group,
                            ProtocolExtensionContainer { { ContextGroupInfoItem-Reset-ExtIEs} }
   iE-Extensions
                                                                                            OPTIONAL,
ContextGroupInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RESET RESPONSE
__ *********************
ResetResponse ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{ResetResponse-IEs}},
                        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
                                                                   CriticalityDiagnostics
                                                                                            PRESENCE optional },
                                                 ignore
   . . .
ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *******************
-- RADIO LINK ACTIVATION COMMAND FDD
  RadioLinkActivationCommandFDD ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{RadioLinkActivationCommandFDD-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}
                                                                                               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 ::= {
   optional }
DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
                          RL-ID,
   delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                          ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ACTIVATION COMMAND TDD
RadioLinkActivationCommandTDD ::= SEQUENCE {
                                           {{RadioLinkActivationCommandTDD-IEs}},
   protocolIEs
               ProtocolIE-Container
                    ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}}
   protocolExtensions
                                                                                        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 ::= {
   optional
```

```
DelayedActivationInformation-RL-ActivationCmdTDD ::= SEOUENCE {
                              RL-ID.
   delayed-activation-update DelayedActivationUpdate,
                              ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  GERAN UPLINK SIGNALLING TRANSFER INDICATION
  *******************
GERANUplinkSignallingTransferIndication ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{GERANUplinkSignallingTransferIndication-IEs}},
                                  ProtocolExtensionContainer {{GERANUplinkSignallingTransferIndication-Extensions}} OPTIONAL,
   protocolExtensions
GERANUplinkSignallingTransferIndication-IES RNSAP-PROTOCOL-IES ::= {
                                      CRITICALITY ignore TYPE UC-ID
                                                                                           PRESENCE mandatory }
    { ID id-UC-ID
   -- 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
     ID id-CN-PS-DomainIdentifier
                                      CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                           PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                      CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                           PRESENCE optional
     ID id-URA-Information
                                      CRITICALITY ignore TYPE URA-Information
                                                                                           PRESENCE optional
    -- URA information may be GRA information
GERANUplinkSignallingTransferIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK PARAMETER UPDATE INDICATION FDD
  ******************
RadioLinkParameterUpdateIndicationFDD ::= SEQUENCE
                                                 {{RadioLinkParameterUpdateIndicationFDD-IEs}},
   protocolIEs
                          ProtocolIE-Container
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkParameterUpdateIndicationFDD-Extensions}}
                                                                                                                 OPTIONAL,
```

```
RadioLinkParameterUpdateIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
          id-HSDSCH-FDD-Update-Information
                                                              CRITICALITY ignore TYPE
                                                                                        HSDSCH-FDD-Update-Information
                                                                                                                          PRESENCE
   optional}|
          id-RL-ParameterUpdateIndicationFDD-RL-InformationList
                                                                                        RL-ParameterUpdateIndicationFDD-RL-InformationList
                                                              CRITICALITY ignore TYPE
       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,
   phase-Reference-Update-Indicator
                                    Phase-Reference-Update-Indicator
                                                                     OPTIONAL,
   iE-Extensions
                                    ProtocolExtensionContainer { { RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ParameterUpdateIndicationFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkParameterUpdateIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- 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
                                                                         TYPE
                                                                                HSDSCH-TDD-Update-Information
                                                                                                                  PRESENCE optional },
                                                              ignore
   . . .
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
   maxNrOfFACHs,
   maxFACHCountPlus1,
   maxIBSEG,
   maxNoOfDSCHs,
   maxNoOfUSCHs,
   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,
maxTGPS,
maxTTI-Count,
maxNoGPSTypes,
maxNoSat,
maxNrOfSNAs,
maxNrOfHAROProc,
maxNrOfHSSCCHCodes,
maxNrOfMACdFlows,
maxNrOfMACdFlows-1,
maxNrOfPDUIndexes,
maxNrOfPDUIndexes-1,
maxNrOfPrioQueues,
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-GERAN-Cell-Capability,
id-GERAN-Classmark,
id-Guaranteed-Rate-Information,
id-HCS-Prio.
id-Load-Value,
id-Load-Value-IncrDecrThres,
id-Neighbouring-GSM-CellInformation,
id-Neighbouring-UMTS-CellInformationItem,
id-neighbouring-LCR-TDD-CellInformation,
id-NRT-Load-Information-Value,
id-NRT-Load-Information-Value-IncrDecrThres,
id-OnModification,
id-Received-Total-Wideband-Power-Value,
id-Received-Total-Wideband-Power-Value-IncrDecrThres,
id-RT-Load-Value,
id-RT-Load-Value-IncrDecrThres,
id-SFNSFNMeasurementThresholdInformation,
id-SNA-Information,
id-TrafficClass,
id-Transmitted-Carrier-Power-Value,
```

```
id-Transmitted-Carrier-Power-Value-IncrDecrThres,
    id-TUTRANGPSMeasurementThresholdInformation.
    id-UL-Timeslot-ISCP-Value.
    id-UL-Timeslot-ISCP-Value-IncrDecrThres,
    maxNrOfLevels.
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    id-MessageStructure,
    id-RestrictionStateIndicator,
    id-Rx-Timing-Deviation-Value-LCR,
    id-TransportLayerAddress,
    id-TypeOfError,
    id-Angle-Of-Arrival-Value-LCR,
    id-IPDL-TDD-ParametersLCR,
    id-DSCH-InitialWindowSize,
    id-Maximum-DL-Power-TimeslotLCR-InformationItem,
    id-Minimum-DL-Power-TimeslotLCR-InformationItem,
    id-HS-SICH-Reception-Ouality,
    id-HS-SICH-Reception-Quality-Measurement-Value,
    id-ExtendedGSMCellIndividualOffset,
    id-Unidirectional-DCH-Indicator,
    id-RTLoadValue,
    id-NRTLoadInformationValue,
    id-Satellite-Almanac-Information-ExtItem,
    id-TnlOos
FROM RNSAP-Constants
    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes
    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;
-- A
AckNack-RepetitionFactor ::= INTEGER (1..4,...)
-- Step: 1
Ack-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN
    transmission-Gap-Pattern-Sequence-Status
                                                Transmission-Gap-Pattern-Sequence-Status-List
                                                                                                   OPTIONAL,
    iE-Extensions
                        ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
```

```
Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
AdjustmentPeriod
                         ::= INTEGER(1..256)
-- Unit Frame
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                   PriorityLevel,
   pre-emptionCapability Pre-emptionCapability,
   pre-emptionVulnerability Pre-emptionVulnerability,
   iE-Extensions
                          ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate-Information ::= SEQUENCE {
   allowed-UL-Rate Allowed-Rate OPTIONAL,
                    Allowed-Rate OPTIONAL,
ProtocolExtensionConta
   allowed-DL-Rate
                          ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                    ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
AllowedQueuingTime
                    ::= INTEGER (1..60)
-- seconds
AlphaValue
                         ::= INTEGER (0..8)
-- Actual value = Alpha / 8
Angle-Of-Arrival-Value-LCR ::= SEQUENCE {
                         AOA-LCR,
    aOA-LCR-Accuracy-Class AOA-LCR-Accuracy-Class,
   iE-Extensions ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
Angle-Of-Arrival-Value-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD
```

```
AOA-LCR-Accuracy-Class ::= ENUMERATED {a,b,c,d,e,f,g,h,...}
AntennaColocationIndicator ::= ENUMERATED {
    co-located,
-- B
BadSatellites ::= SEQUENCE {
    badSatelliteInformation
                               SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
           badSAT-ID
                                       SAT-ID,
           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.
                      ::= 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),
                    INTEGER (10..25),
    burstLength
    burstFreq
                    INTEGER (1..16),
                                ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }
    iE-Extensions
                                                                                                    OPTIONAL,
BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- C
Cause ::= CHOICE {
    radioNetwork
                        CauseRadioNetwork,
                        CauseTransport,
    transport
    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 ::= SEOUENCE {
    lai
                SEOUENCE {
        pLMN-Identity PLMN-Identity,
       1AC
                                ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
        iE-Extensions
                    CI,
    сI
                            ProtocolExtensionContainer { {CGI-ExtIEs} } OPTIONAL
    iE-Extensions
LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    . . .
ChipOffset
                       ::= INTEGER (0..38399)
CI
                    ::= OCTET STRING (SIZE (2))
ClosedLoopModel-SupportIndicator
                                    ::= ENUMERATED {
    closedLoop-Model-Supported,
    closedLoop-Model-not-Supported
Closedlooptimingadjustmentmode ::= ENUMERATED {
```

```
adj-1-slot,
    adj-2-slot,
    . . .
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
                                    ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}
Extension-CommonMeasurementValue
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::= SEQUENCE {
    commonMeasurementValue
                                CommonMeasurementValue,
   iE-Extensions
                                    ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }
                                                                                                                  OPTIONAL.
CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CongestionCause ::= ENUMERATED {
    uTRAN-dynamic-resources,
    uTRAN-semistatic-resources,
CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED
    not-Required
CoverageIndicator ::= ENUMERATED {
    overlap,
    covers,
    containedIn,
CRC-Size
                        ::= ENUMERATED {
    v0,
    v8,
    v12,
   v16,
    v24,
    . . .
CriticalityDiagnostics ::= SEQUENCE {
    procedureID
                                ProcedureID
                                                    OPTIONAL,
    triggeringMessage
                                TriggeringMessage
                                                        OPTIONAL,
    procedureCriticality
                                Criticality
                                                        OPTIONAL,
    transactionID
                                TransactionID
                                                        OPTIONAL,
    iEsCriticalityDiagnostics
                                    CriticalityDiagnostics-IE-List OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality
                                Criticality,
        iE-ID
                                ProtocolIE-ID,
```

```
repetitionNumber
                                RepetitionNumber0
                                                        OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-MessageStructure
                               CRITICALITY ignore
                                                        EXTENSION MessageStructure
                                                                                        PRESENCE optional }
   ID id-TypeOfError
                                CRITICALITY ignore
                                                        EXTENSION TypeOfError
                                                                                        PRESENCE mandatory },
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
   SEQUENCE {
       iE-ID
                               ProtocolIE-ID,
       repetitionNumber
                                RepetitionNumber1
                                                        OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                       PLMN-Identity,
   lAC
                        LAC,
                        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,
                       ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
    iE-Extensions
CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNDomainType
                ::= ENUMERATED
   cs-domain,
   ps-domain,
   dont-care,
-- See in [16]
CQI-Feedback-Cycle ::= ENUMERATED {v0, v2, v4, v8, v10, v20, v40, v80, v160,...}
```

```
COI-Power-Offset ::= INTEGER (0..8,...)
-- According to mapping in ref. [21] subclause 4.2.1
COI-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,
    t.oAWE
                                        ToAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-FDD-InformationList,
                                        ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlOos
                                                                                             optional },
                            CRITICALITY
                                            ignore
                                                         EXTENSION TnlOos
                                                                                 PRESENCE
    . . .
DCH-Specific-FDD-InformationList ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item
DCH-Specific-FDD-Item ::=
                           SEQUENCE {
    dCH-TD
                                        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
                                TransportLaverAddress OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Allowed-Rate-Information
                                            CRITICALITY ignore EXTENSION Allowed-Rate-Information
                                                                                                        PRESENCE optional },
DCH-TDD-Information
                        ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem
DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
    ul-FP-Mode
                                        UL-FP-Mode,
    toAWS
                                        ToAWS,
                                        TOAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-TDD-InformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {DCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    . . .
DCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlOos
                                        CRITICALITY
                                                        ignore
                                                                    EXTENSION
                                                                                Tnl0os
                                                                                             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
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    frameHandlingPriority
                                        FrameHandlingPriority,
    σE-Selector
                                        QE-Selector
                                                            OPTIONAL,
    -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
                                        ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
```

```
ID id-Guaranteed-Rate-Information
                                                                                               PRESENCE optional }
                                       CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
     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-error.
   transmitted-code-power,
   rSCP,
   rx-timing-deviation,
   round-trip-time,
   rx-timing-deviation-LCR,
   angle-Of-Arrival-LCR,
   hs-sich-quality
DedicatedMeasurementValue ::= CHOICE {
   sTR-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 {
                            DedicatedMeasurementAvailable,
   measurementAvailable
                            DedicatedMeasurementnotAvailable
   measurementnotAvailable
DedicatedMeasurementAvailable::= SEOUENCE {
   dedicatedmeasurementValue
                                DedicatedMeasurementValue,
   cFN
   ie-Extensions
                                OPTIONAL,
DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DedicatedMeasurementnotAvailable ::= NULL
DelayedActivation ::= CHOICE {
    separate-indication
                          NULL
DelayedActivationUpdate ::= CHOICE {
                  Activate-Info,
    activate
    deactivate
                   Deactivate-Info
Activate-Info ::= SEQUENCE {
    activation-type
                          Execution-Type,
    initial-dl-tx-power
                          DL-Power,
                          FirstRLS-Indicator
                                                                                    OPTIONAL, --FDD Only
    firstRLS-Indicator
    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,
    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 {
    qPSTOW
                                          GPSTOW,
    gPS-Status-Health
                                          GPS-Status-Health,
    satellite-DGPSCorrections-Information
                                          SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
           sAT-ID
                                              SAT-ID,
           iode-dgps
                                             BIT STRING (SIZE (8)),
           uDRE
                                             UDRE,
```

```
pRC
                                                                                                                                           PRC,
                                  range-Correction-Rate
                                                                                                                                           Range-Correction-Rate,
                                  iE-Extensions
                                                                                                                                           ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }
                                                                                                                                                                                                                                                                                                                                                                                         OPTIONAL.
                                                                                                        ProtocolExtensionContainer { { DGPSCorrections-ExtIEs} }
            iE-Extensions
                                                                                                                                                                                                                                                                                            OPTIONAL,
            . . .
Satellite-DGPSCorrections-Information-Extles RNSAP-PROTOCOL-EXTENSION ::= {
            . . .
DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DGPSThreshold ::= SEQUENCE {
           pRCDeviation
                                                                     PRCDeviation,
           iE-Extensions
                                                                     OPTIONAL,
DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiscardTimer ::= ENUMERATED
\{v20, v40, v60, v80, v100, v120, v140, v160, v180, v200, v250, v300, v400, v500, v750, v1000, v1250, v1500, v1750, v2000, v2500, v3000, v3500, v4000, v4500, v5000, v7500, v1000, v100
DiversityControlField
                                                                                            ::= ENUMERATED {
           may,
           must,
           must-not
DiversityMode
                                                                                ::= ENUMERATED {
           none,
            sTTD,
            closedLoopModel,
           not-used-closedLoopMode2,
DL-DPCH-SlotFormat
                                                                                 ::= INTEGER (0..16,...)
DL-DPCH-TimingAdjustment ::= ENUMERATED {
            timing-advance,
            timing-delay
```

```
DL-Power
                       ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step 0.1dB
DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdiustmentType
                                       PowerAdjustmentType,
    dLReferencePower
                                       DL-Power
                                                       OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
                             DL-ReferencePowerInformationList
    dLReferencePowerList
    -- 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 ::= SEQUENCE {
   rL-ID
    dl-Reference-Power
                                DL-Power,
    iE-Extensions
                                ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    . . .
DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-PowerBalancing-ActivationIndicator ::= ENUMERATED {
    dL-PowerBalancing-Activated
DL-PowerBalancing-UpdatedIndicator ::= ENUMERATED {
    dL-PowerBalancing-Updated
DL-ReferencePowerInformation
                             ::= SEOUENCE {
    common-DL-ReferencePowerInformation
                                                DL-Power
                                                                OPTIONAL,
    individual-DL-ReferencePowerInformation
                                                DL-ReferencePowerInformationList
                                                                                        OPTIONAL,
                                                ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
    iE-Extensions
    . . .
```

```
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,
                                         ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }
   iE-Extensions
                                                                                                               OPTIONAL,
DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   PRESENCE optional } |
   -- Applicable to 1.28Mcps TDD only
   { ID id-Minimum-DL-Power-TimeslotLCR-InformationItem
                                                      CRITICALITY ignore EXTENSION DL-Power
                                                                                                                PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
DL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem
```

```
DL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot
                                TimeSlot.
    dL-TimeslotISCP
                                DL-TimeslotISCP,
    iE-Extensions
                                ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem
DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    dL-TimeslotISCP
                                    DL-TimeslotISCP,
                                    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
    not-Used-puncturing,
    sFdiv2,
   higher-layer-scheduling,
    . . .
DPC-Mode ::= ENUMERATED {
   mode0,
    mode1,
DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
   dPC-ModeChangeSupported
DPCH-ID
                       ::= INTEGER (0..239)
DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
DRACControl
                ::= ENUMERATED {
    requested,
    not-requested
```

```
DRXCycleLengthCoefficient
                                       ::= INTEGER (3...9)
-- See in [16]
DSCH-RNTI ::= INTEGER (0..65535)
DSCH-FlowControlInformation ::= SEOUENCE (SIZE(1..16)) OF DSCH-FlowControlItem
DSCH-FlowControlItem ::= SEOUENCE {
    dSCH-SchedulingPriority
                                       SchedulingPriorityIndicator,
                                       MAC-c-sh-SDU-LengthList,
    mAC-c-sh-SDU-Lengths
                                       ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
   iE-Extensions
DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DSCH-InitialWindowSize CRITICALITY ignore EXTENSION DSCH-InitialWindowSize PRESENCE optional },
    . . .
DSCH-ID
                      ::= INTEGER (0..255)
DSCH-InitialWindowSize
                               ::= INTEGER (1..255)
-- Number of MAC-c/sh SDUs.
-- 255 = Unlimited number of MAC-c/sh SDUs
DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem
DSCH-TDD-InformationItem ::= SEQUENCE {
   dSCH-ID
    dl-ccTrCHID
                                       CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor
                                       TrCH-SrcStatisticsDescr.
    transportFormatSet
                                       TransportFormatSet,
    allocationRetentionPriority
                                       AllocationRetentionPriority,
    schedulingPriorityIndicator
                                       SchedulingPriorityIndicator,
   bLER
    iE-Extensions
                                       ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
DSCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                           CRITICALITY ignore EXTENSION TrafficClass
                                                                                           PRESENCE mandatory}
    { ID id-BindingID
                                           CRITICALITY ignore EXTENSION BindingID
                                                                                      PRESENCE
                                                                                                                   optional }
    -- Shall be ignored if bearer establishment with ALCAP.
   { ID id-TransportLayerAddress
                                           CRITICALITY ignore EXTENSION TransportLayerAddress
                                                                                                    PRESENCE
                                                                                                                optional },
    -- Shall be ignored if bearer establishment with ALCAP.
DsField ::= BIT STRING (SIZE (8))
-- E
```

```
Enhanced-PrimaryCPICH-EcNo
                                  ::= INTEGER (0..49)
EventA ::= SEQUENCE {
   measurementTreshold
                          MeasurementThreshold,
   measurementHysteresisTime MeasurementHysteresisTime
                                                              OPTIONAL,
                          ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
   iE-Extensions
EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventB ::= SEQUENCE {
                          MeasurementThreshold,
   measurementTreshold
   measurementHysteresisTime MeasurementHysteresisTime
                                                              OPTIONAL,
                          ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
   iE-Extensions
EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventC ::= SEOUENCE {
   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,
    measurementThreshold2
                                MeasurementThreshold
                                                                OPTIONAL,
    measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
                                                        OPTIONAL,
    reportPeriodicity
                           ReportPeriodicity
    iE-Extensions
                            ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExtendedGSMCellIndividualOffset ::= INTEGER (-50..-11|11..50)
-- F
FACH-FlowControlInformation ::= SEOUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem
FACH-FlowControlInformationItem ::= SEQUENCE {
    fACH-SchedulingPriority
                                    SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths
                                    MAC-c-sh-SDU-LengthList,
    fACH-InitialWindowSize
                                    FACH-InitialWindowSize,
                                    ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                ::= 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 ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem
```

```
FACH-PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet.
    iE-Extensions
                                    ProtocolExtensionContainer { { FACH-PCH-InformationItem-ExtIEs} } OPTIONAL,
FACH-PCH-InformationItem-ExtlEs 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
                                                    OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        FDD-DCHs-to-ModifySpecificInformationList,
                                        ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlOos
                                        CRITICALITY
                                                        ignore
                                                                    EXTENSION TnlQos 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 } |
                                                                                PRESENCE optional },
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
    . . .
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 ::= SEQUENCE {
    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,
    ellipsoidArc
                                                     GA-EllipsoidArc,
    . . .
GA-AltitudeAndDirection ::= SEQUENCE {
    directionOfAltitude
                            ENUMERATED {height, depth},
    altitude
                            INTEGER (0..32767),
    . . .
GA-EllipsoidArc ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    innerRadius
                                INTEGER (0..65535),
    uncertaintyRadius
                                INTEGER (0..127),
    offsetAngle
                                INTEGER (0..179),
    includedAngle
                                INTEGER (0..179),
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitude ::= SEQUENCE {
                                GeographicalCoordinate,
    geographicalCoordinates
    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 ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    uncertaintyEllipse
                                GA-UncertaintyEllipse,
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
    . . .
GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-UncertaintyEllipse ::= SEOUENCE {
    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,
                            ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GeographicalCoordinate ::= SEQUENCE {
    latitudeSign
                            ENUMERATED { north, south },
    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 {
    wna-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
           qps-toa-alm
                                BIT STRING (SIZE (8)),
           qps-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)),
           gps-omega-alm
                                BIT STRING (SIZE (24)),
           gps-af-zero-alm
                               BIT STRING (SIZE (11)),
           gps-af-one-alm
                                BIT STRING (SIZE (11)),
           iE-Extensions
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} }
                                                                                                           OPTIONAL,
    -- This GPS-Almanac-Information is for the 1st 16 satellites
                            BIT STRING (SIZE (364))
    sVGlobalHealth-alm
                                                        OPTIONAL,
                            ProtocolExtensionContainer { GPS-Almanac-ExtIEs} }
    iE-Extensions
                                                                                        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 ::= SEQUENCE (SIZE (1..maxNrOfSatAlmanac-maxNoSat)) OF
        SEQUENCE {
            data-id
                                DATA-ID,
            sAT-ID
                                SAT-ID,
            qps-e-alm
                                BIT STRING (SIZE (16)),
            gps-toa-alm
                                BIT STRING (SIZE (8)),
            gps-delta-I-alm
                                BIT STRING (SIZE (16)),
            omegadot-alm
                                BIT STRING (SIZE (16)),
            svhealth-alm
                                BIT STRING (SIZE (8)),
            gps-a-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)),
            qps-af-zero-alm
                                BIT STRING (SIZE (11)),
            qps-af-one-alm
                                BIT STRING (SIZE (11)),
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtItemIEs} }
           iE-Extensions
-- 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 ·
        qPSInformationItem
                                ENUMERATED {
            gPS-NavigationModel-and-TimeRecovery,
            gPS-Ionospheric-Model,
           qPS-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-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Ionospheric-Model ::= SEOUENCE {
    alpha-zero-ionos
                           BIT STRING (SIZE (8)),
    alpha-one-ionos
                           BIT STRING (SIZE (8)),
    alpha-two-ionos
                           BIT STRING (SIZE (8)),
    alpha-three-ionos
                           BIT STRING (SIZE (8)),
    beta-zero-ionos
                            BIT STRING (SIZE (8)),
    beta-one-ionos
                            BIT STRING (SIZE (8)),
    beta-two-ionos
                            BIT STRING (SIZE (8)),
    beta-three-ionos
                            BIT STRING (SIZE (8)),
    iE-Extensions
                            ProtocolExtensionContainer { GPS-Ionospheric-Model-ExtIEs} }
                                                                                                  OPTIONAL,
```

```
GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF
   SEOUENCE {
       tx-tow-nav
                                       INTEGER (0..1048575),
       sAT-ID
                                       SAT-ID,
       tlm-message-nav
                                      BIT STRING (SIZE (14)),
       tlm-revd-c-nav
                                      BIT STRING (SIZE (2)),
       ho-word-nav
                                      BIT STRING (SIZE (22)),
       w-n-nav
                                      BIT STRING (SIZE (10)),
       ca-or-p-on-12-nav
                                      BIT STRING (SIZE (2)),
       user-range-accuracy-index-nav BIT STRING (SIZE (4)),
       sv-health-nav
                                      BIT STRING (SIZE (6)),
       iodc-nav
                                      BIT STRING (SIZE (10)),
       12-p-dataflag-nav
                                      BIT STRING (SIZE (1)),
       sfl-reserved-nav
                                      BIT STRING (SIZE (87)),
       t-gd-nav
                                      BIT STRING (SIZE (8)),
       t-oc-nav
                                      BIT STRING (SIZE (16)),
       a-f-2-nav
                                      BIT STRING (SIZE (8)),
       a-f-1-nav
                                      BIT STRING (SIZE (16)),
       a-f-zero-nav
                                      BIT STRING (SIZE (22)),
       c-rs-nav
                                      BIT STRING (SIZE (16)),
       delta-n-nav
                                      BIT STRING (SIZE (16)),
       m-zero-nav
                                      BIT STRING (SIZE (32)),
       c-uc-nav
                                      BIT STRING (SIZE (16)),
       qps-e-nav
                                      BIT STRING (SIZE (32)),
                                      BIT STRING (SIZE (16)),
       c-us-nav
       a-sqrt-nav
                                      BIT STRING (SIZE (32)),
       t-oe-nav
                                      BIT STRING (SIZE (16)),
       fit-interval-flag-nav
                                      BIT STRING (SIZE (1)),
       aodo-nav
                                      BIT STRING (SIZE (5)),
       c-ic-nav
                                      BIT STRING (SIZE (16)),
       omega-zero-nav
                                      BIT STRING (SIZE (32)),
       c-is-nav
                                      BIT STRING (SIZE (16)),
       i-zero-nav
                                      BIT STRING (SIZE (32)),
       c-rc-nav
                                      BIT STRING (SIZE (16)),
       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)),
                                      ProtocolExtensionContainer { GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs} }
       iE-Extensions
                                                                                                                         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,
                                ProtocolExtensionContainer { GPS-RX-POS-ExtIEs} } OPTIONAL,
    iE-Extensions
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)),
    t-ot-utc
                            BIT STRING (SIZE (8)),
    delta-t-ls-utc
                           BIT STRING (SIZE (8)),
    w-n-t-utc
                           BIT STRING (SIZE (8)),
    w-n-lsf-utc
                           BIT STRING (SIZE (8)),
    dn-utc
                           BIT STRING (SIZE (8)),
    delta-t-lsf-utc
                           BIT STRING (SIZE (8)),
    iE-Extensions
                            ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }
                                                                                         OPTIONAL,
GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate-Information ::= SEOUENCE {
    guaranteed-UL-Rate
                                Guaranteed-Rate OPTIONAL,
    guaranteed-DL-Rate
                                Guaranteed-Rate OPTIONAL,
                                ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
Guaranteed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Guaranteed-Rate
                      ::= INTEGER (1..maxNrOfTFs)
-- "1": TFI 0, "2": TFI 1, "3": TFI 2, ...
-- H
HARQ-MemoryPartitioning ::= CHOICE
    implicit
                    HARO-MemoryPartitioning-Implicit,
    explicit
                    HARQ-MemoryPartitioning-Explicit,
    . . .
HARO-MemoryPartitioning-Implicit ::= SEOUENCE {
    number-of-Processes
                               INTEGER (1..8,...),
    iE-Extensions
                                ProtocolExtensionContainer { { HARO-MemoryPartitioning-Implicit-ExtIEs } }
                                                                                                                 OPTIONAL,
HARO-MemoryPartitioning-Implicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARQ-MemoryPartitioning-Explicit
                                   ::= SEQUENCE {
    hARQ-MemoryPartitioningList
                                        HARO-MemoryPartitioningList,
    iE-Extensions
                                        ProtocolExtensionContainer { { HARQ-MemoryPartitioning-Explicit-ExtIEs } }
                                                                                                                          OPTIONAL.
    . . .
HARO-MemoryPartitioning-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARQ-MemoryPartitioningList ::= SEQUENCE (SIZE (1..maxNrOfHARQProc)) OF HARQ-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 { { HARO-MemoryPartitioningItem-ExtIEs } }
    iE-Extensions
                                                                                                                    OPTIONAL,
HARQ-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,
    cqiRepetitionFactor
                                                                                              OPTIONAL,
                                                 CQI-RepetitionFactor
    -- This IE shall be present if the CQI Feedback Cycle k IE is set to a value greater than 0.
    ackNackRepetitionFactor
                                                 AckNack-RepetitionFactor,
    cqiPowerOffset
                                                 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-Extles 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,
    hARO-MemoryPartitioning
                                                     HARO-MemoryPartitioning
                                                                                                                                     OPTIONAL,
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtIEs } }
    iE-Extensions
                                                                                                                                     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
                                                     PriorityOueue-InfoList-to-Modify
                                                                                                       OPTIONAL,
    mAChs-Reordering-Buffer-Size-for-RLC-UM
                                                     MAChsReorderingBufferSize-for-RLC-UM
                                                                                                       OPTIONAL,
                                                     CQI-Feedback-Cycle
    cgiFeedback-CycleK
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    cgiRepetitionFactor
                                                     COI-RepetitionFactor
                                                                                                       OPTIONAL,
                                                                                                                   -- For FDD only
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                                       OPTIONAL,
                                                                                                                  -- For FDD only
    cgiPowerOffset
                                                     COI-Power-Offset
                                                                                                       OPTIONAL,
                                                                                                                  -- For FDD only
                                                                                                                  -- For FDD only
    ackPowerOffset
                                                     Ack-Power-Offset
                                                                                                       OPTIONAL,
    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,
    cgiPowerOffset
                                                    COI-Power-Offset
                                                                                     OPTIONAL, -- For FDD only
    ackPowerOffset
                                                    Ack-Power-Offset
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
                                                    Nack-Power-Offset
    nackPowerOffset
                                                                                     OPTIONAL,
                                                                                                 -- For FDD only
    hsscch-PowerOffset
                                                    HSSCCH-PowerOffset
                                                                                     OPTIONAL.
                                                                                                 -- Only for FDD
    tDDAckNackPowerOffset
                                                    TDD-AckNack-Power-Offset
                                                                                     OPTIONAL.
                                                                                                 -- For TDD only
    iE-Extensions
                                                    ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-Unsynchronised-ExtIEs } }
    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,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }
    iE-Extensions
                                                                                                                           OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (0..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response
HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
    hSDSCH-Initial-Capacity-Allocation HSDSCH-Initial-Capacity-Allocation
                                                                                 OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }
                                                                                                                                    OPTIONAL
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                                 OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    trafficClass
                                        TrafficClass
                                                                                 OPTIONAL,
                                        BindingID
    bindingID
                                                                                 OPTIONAL,
                                        TransportLayerAddress
    transportLayerAddress
                                                                                 OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }
                                                                                                                                      OPTIONAL,
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlows-Information ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                                    HSDSCH-MACdFlow-Specific-InfoList,
   priorityQueue-Info
                                                    PriorityQueue-InfoList,
                                                    ProtocolExtensionContainer { { HSDSCH-MACdFlows-Information-ExtIEs } }
   iE-Extensions
                                                                                                                                   OPTIONAL
    . . .
HSDSCH-MACdFlows-Information-ExtIEs 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-ExtIEs 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,
                                                     ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }
    iE-Extensions
                                                                                                                                       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),
   iE-Extensions
                                                     ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
   OPTIONAL,
    . . .
HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-PowerOffset ::= INTEGER (0..255)
-- PowerOffset = -32 + offset * 0.25
-- Unit dB, Range -32dB .. +31.75dB, Step +0.25dB
HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (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
    failed-HS-SICH
                             HS-SICH-failed,
    missed-HS-SICH
                                HS-SICH-missed,
    total-HS-SICH
                                HS-SICH-total,
    iE-Extensions
                                ProtocolExtensionContainer { { HS-SICH-Reception-Quality-Value-ExtIEs} } OPTIONAL,
HS-SICH-Reception-Quality-Value-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HS-SICH-failed ::= INTEGER (0..20)
HS-SICH-missed ::= INTEGER (0..20)
HS-SICH-total ::= INTEGER (0..20)
HS-SICH-Reception-Quality-Measurement-Value ::= INTEGER (0..20)
```

```
-- According to mapping in [23]
HS-SICH-ID ::= INTEGER (0..31)
HSSCCH-CodeChangeIndicator ::= ENUMERATED {
    hsSCCHCodeChangeNeeded
HSSCCH-Code-Change-Grant
                            ::= ENUMERATED {
    changeGranted
HSDSCH-FDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator
                                                     HSSCCH-CodeChangeIndicator
                                                                                                  OPTIONAL,
    cgiFeedback-CycleK
                                                     COI-Feedback-Cycle
                                                                                                  OPTIONAL,
    cgiRepetitionFactor
                                                     COI-RepetitionFactor
                                                                                                  OPTIONAL,
    ackNackRepetitionFactor
                                                     AckNack-RepetitionFactor
                                                                                                  OPTIONAL,
    cqiPowerOffset
                                                     COI-Power-Offset
                                                                                                  OPTIONAL,
                                                     Ack-Power-Offset
    ackPowerOffset
                                                                                                  OPTIONAL,
    nackPowerOffset
                                                     Nack-Power-Offset
                                                                                                  OPTIONAL,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-FDD-Update-Information-ExtIEs } }
                                                                                                                                  OPTIONAL,
    . . .
HSDSCH-FDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Update-Information ::= SEQUENCE {
    hsSCCHCodeChangeIndicator
                                                     HSSCCH-CodeChangeIndicator
                                                                                                  OPTIONAL,
    tDDAckNackPowerOffset
                                                     TDD-AckNack-Power-Offset
                                                                                                  OPTIONAL,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-TDD-Update-Information-ExtIEs } }
                                                                                                                                  OPTIONAL,
    . . .
HSDSCH-TDD-Update-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- I
IB-SchedulingInformation::= SEQUENCE
                                    IB-SG-REP,
    iB-SG-Rep
    iB-segmentInformationList
                                    IB-SegmentInformationList,
   iE-Extensions
                                    ProtocolExtensionContainer { { IB-SchedulingInformation-ExtIEs } } OPTIONAL,
IB-SchedulingInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
IB-SegmentInformationList ::= SEQUENCE (SIZE(1..maxIBSEG)) OF IB-SegmentInformationItem
```

```
IB-SegmentInformationItem ::= SEQUENCE {
   iB-SG-POS
                                 IB-SG-POS,
   iE-Extensions
                                 IB-SeqmentInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
           ::= OCTET STRING (SIZE(3..8))
IMSI
InformationAvailable::= SEQUENCE {
                          RequestedDataValue,
   requestedDataValue
                          ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }
   iE-Extensions
                                                                                         OPTIONAL,
InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeID ::= INTEGER (0..1048575)
InformationNotAvailable ::= NULL
InformationReportCharacteristics ::= CHOICE {
   onDemand
   periodic
                         PeriodicInformation,
                       OnModificationInformation,
   onModification
InformationReportPeriodicity ::= CHOICE {
   min
                  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,
        qA-AccessPointPosition,
        iPDLParameters.
        qPSInformation,
        dGPSCorrections,
        gPS-RX-POS,
       sFNSFN-GA-AccessPointPosition,
        cell-Capacity-Class
                                GPSInformation
                                                        OPTIONAL,
    gPSInformation
                                ProtocolExtensionContainer { { InformationType-ExtIEs} }
    iE-Extensions
                                                                                                 OPTIONAL,
-- The GPS Information IE shall be present if the Information Exchange Type IE indicates 'GPS Information'
-- For information exchange on the Iur-q interface, only the Cell Capacity Class is used.
InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                       ::= ENUMERATED {active, inactive}
InnerLoopDLPCStatus
IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters
                                IPDL-FDD-Parameters,
                                                        --3.84Mcps TDD only
    iPDL-TDD-Parameters
                                IPDL-TDD-Parameters,
    extension-IPDLParameters
                                Extension-IPDLParameters
                           ::= ProtocolIE-Single-Container {{ Extension-IPDLParametersIE }}
Extension-IPDLParameters
Extension-IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR CRITICALITY reject TYPE IPDL-TDD-ParametersLCR PRESENCE mandatory },
    . . .
IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD
                                IPSpacingFDD,
    iPLength
                                IPLength,
    iPOffset
                                IPOffset,
    seed
                                Seed,
    burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }
    iE-Extensions
                                                                                                   OPTIONAL,
IPDL-FDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-Parameters ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
```

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```
iPStart
                                IPStart,
    iPSlot
                                IPSlot,
    iP-P-CCPCH
                                IP-P-CCPCH.
    burstModeParameters
                                BurstModeParameters
                                                         OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }
                                                                                                   OPTIONAL,
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-ParametersLCR ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
    iPStart
                                IPStart,
    iPSub
                                IPSub,
    burstModeParameters
                                BurstModeParameters
                                                         OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPLength ::= ENUMERATED {
   ipl5,
    ipl10,
    . . .
IPOffset ::= INTEGER (0..9)
IP-P-CCPCH ::= ENUMERATED {
    switchOff-1-Frame,
    switchOff-2-Frames
IPSlot ::= INTEGER (0..14)
IPSpacingFDD ::= ENUMERATED {
    ipsF5,
    ipsF7,
    ipsF10,
    ipsF15,
    ipsF20,
    ipsF30,
    ipsF40,
    ipsF50,
    . . .
```

```
IPSpacingTDD ::= ENUMERATED {
    ipsT30,
    ipsT40,
    ipsT50,
    ipsT70,
    ipsT100,
IPStart ::= INTEGER (0..4095)
IPSub ::= ENUMERATED {
    first,
    second,
    both
-- L
                    ::= OCTET STRING (SIZE (2)) -- (EXCEPT ('0000'H|'FFFE'H))
LAC
LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
L3-Information
                           ::= BIT STRING
Load-Value-IncrDecrThres ::= INTEGER(0..100)
Load-Value ::= INTEGER(0..100)
LoadValue ::= SEQUENCE {
        uplinkLoadValue
                            INTEGER(0..100),
        downlinkLoadValue INTEGER(0..100)
-- M
MaxNrOfUL-DPCHs
                           ::= INTEGER (1..6)
MAC-c-sh-SDU-Length
                           ::= INTEGER (1..5000)
MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length
MACdPDU-Size ::= INTEGER (1..5000,...)
MACdPDU-Size-IndexList ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem
MACdPDU-Size-IndexItem ::= SEQUENCE {
```

```
sID
                                      SID,
   mACdPDU-Size
                                      MACdPDU-Size.
   iE-Extensions
                                      ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs } }
                                                                                                           OPTIONAL.
MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MACdPDU-Size-IndexList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify
MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
   sID
   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
                      ::= ENUMERATED {v4, v6, v8, v12, v16, v24, v32,...}
MAC-hsWindowSize
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)
MeasurementFilterCoefficient ::= ENUMERATED (k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...)
-- Measurement Filter Coefficient to be used for measurement
Measurement TD
                          ::= INTEGER (0..1048575)
Measurement-Power-Offset ::= INTEGER(-12 .. 26)
-- Actual value = IE value * 0.5
MinimumSpreadingFactor
                          ::= INTEGER (1..16)
MultipleURAsIndicator ::= ENUMERATED {
   multiple-URAs-exist,
```

```
single-URA-exists
MaxAdjustmentStep
                    ::= INTEGER(1..10)
-- Unit Slot
MeasurementChangeTime
                     ::= INTEGER (1..6000,...)
-- The MeasurementChangeTime gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms
MeasurementHysteresisTime
                        ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms
MeasurementIncreaseDecreaseThreshold
                                 ::= CHOICE {
   sir
                           SIR-Value-IncrDecrThres.
                           SIR-Error-Value-IncrDecrThres,
   sir-error
   transmitted-code-power
                           Transmitted-Code-Power-Value-IncrDecrThres,
                           RSCP-Value-IncrDecrThres,
   round-trip-time
                           Round-Trip-Time-IncrDecrThres,
   extension-MeasurementIncreaseDecreaseThreshold
                                          Extension-MeasurementIncreaseDecreaseThreshold
Extension-MeasurementIncreaseDecreaseThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}
Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
    ID id-Load-Value-IncrDecrThres
                              CRITICALITY reject TYPE Load-Value-IncrDecrThres PRESENCE mandatory }
    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
                           SIR-Error-Value,
   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 }}
```

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory

PRESENCE mandatory PRESENCE mandatory

PRESENCE mandatory}

```
Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::=
     ID id-TUTRANGPSMeasurementThresholdInformation
                                                        CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation
                                                        CRITICALITY reject TYPE SFNSFNMeasurementThresholdInformation
     ID id-SFNSFNMeasurementThresholdInformation
     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 {
                                        SEQUENCE
        midambleConfigurationBurstType1And3
                                                MidambleConfigurationBurstType1And3,
        midambleAllocationMode
                                            CHOICE
           defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
           ueSpecificMidamble
                                                MidambleShiftLong,
                                        SEOUENCE
    type2
        midambleConfigurationBurstType2
                                            MidambleConfigurationBurstType2,
        midambleAllocationMode
                                            CHOICE {
           defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
           ueSpecificMidamble
                                                MidambleShiftShort,
        . . .
    type3
                                        SEOUENCE
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode
                                        CHOICE {
           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 {
    qPSK,
    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
                                           RNC-ID,
                                           CN-PS-DomainIdentifier
    cN-PS-DomainIdentifier
                                                                      OPTIONAL,
    cN-CS-DomainIdentifier
                                           CN-CS-DomainIdentifier
                                                                      OPTIONAL,
   neighbouring-FDD-CellInformation
                                           Neighbouring-FDD-CellInformation
                                                                              OPTIONAL,
    neighbouring-TDD-CellInformation
                                           Neighbouring-TDD-CellInformation
                                                                              OPTIONAL,
   iE-Extensions
                                           ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation
                                                          CRITICALITY ignore
                                                                                  EXTENSION
                                                                                              Neighbouring-LCR-TDD-CellInformation
                                                                                                                                         PRESENCE
optional },
    . . .
Neighbouring-FDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem
Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
   c-ID
                                       C-ID,
   uARFCNforNu
                                       UARFCN,
    uARFCNforNd
                                       UARFCN,
    frameOffset
                                       FrameOffset
                                                           OPTIONAL,
   primaryScramblingCode
                                       PrimaryScramblingCode,
   primaryCPICH-Power
                                       PrimaryCPICH-Power
                                                              OPTIONAL,
    cellIndividualOffset
                                       CellIndividualOffset
                                                              OPTIONAL,
    txDiversityIndicator
                                       TxDiversityIndicator,
    sTTD-SupportIndicator
                                       STTD-SupportIndicator OPTIONAL,
    closedLoopModel-SupportIndicator
                                       ClosedLoopModel-SupportIndicator
                                                                          OPTIONAL,
    not-used-closedLoopMode2-SupportIndicator NULL
                                                      OPTIONAL,
    iE-Extensions
                                       ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
    . . .
Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-RestrictionStateIndicator
                                                   CRITICALITY ignore
                                                                              EXTENSION RestrictionStateIndicator
                                                                                                                    PRESENCE optional } |
     ID id-DPC-Mode-Change-SupportIndicator
                                               CRITICALITY ignore
                                                                      EXTENSION DPC-Mode-Change-SupportIndicator
                                                                                                                       PRESENCE optional } |
     ID id-CoverageIndicator
                                                                      EXTENSION CoverageIndicator
                                                                                                              PRESENCE optional }
                                           CRITICALITY ignore
     ID id-AntennaColocationIndicator
                                                                      EXTENSION AntennaColocationIndicator
                                           CRITICALITY ignore
                                                                                                              PRESENCE optional }
```

```
ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                        EXTENSION HCS-Prio
                                                                                                                 PRESENCE optional }
      ID id-CellCapabilityContainer-FDD
                                                CRITICALITY ignore
                                                                        EXTENSION
                                                                                  CellCapabilityContainer-FDD
                                                                                                                          PRESENCE optional } |
     ID id-SNA-Information
                                            CRITICALITY ignore
                                                                        EXTENSION SNA-Information
                                                                                                        PRESENCE optional }.
NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    11ARFCN
                                        UARFCN,
                                        PrimaryScramblingCode,
    primaryScramblingCode
                                        ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}
Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-GSM-CellInformation CRITICALITY ignore TYPE
                                                                            Neighbouring-GSM-CellInformationIEs PRESENCE mandatory }
Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem
Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cellIndividualOffset
                                        CellIndividualOffset
                                                                OPTIONAL,
    bSIC
                                        BSIC.
                                        Band-Indicator,
    band-Indicator
    bcch-arfcn
                                        BCCH-ARFCN,
                                        ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION CoverageIndicator
                                                                                                                    PRESENCE optional }
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION AntennaColocationIndicator
                                                                                                                    PRESENCE optional
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                        EXTENSION HCS-Prio
                                                                                                                    PRESENCE optional
      ID id-SNA-Information
                                            CRITICALITY ignore
                                                                        EXTENSION SNA-Information
                                                                                                                    PRESENCE optional
      ID id-GERAN-Cell-Capability
                                                                        EXTENSION GERAN-Cell-Capability
                                                                                                                    PRESENCE optional
                                            CRITICALITY ignore
      ID id-GERAN-Classmark
                                            CRITICALITY ignore
                                                                        EXTENSION GERAN-Classmark
                                                                                                                    PRESENCE optional
     ID id-ExtendedGSMCellIndividualOffset CRITICALITY ignore
                                                                        EXTENSION ExtendedGSMCellIndividualOffset PRESENCE optional },
Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem
Neighbouring-TDD-CellInformationItem ::= SEQUENCE {
                                    C-ID,
    c-ID
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                        OPTIONAL,
    cellParameterID
                                    CellParameterID,
```

```
syncCase
                                    SyncCase,
    timeSlot
                                    TimeSlot
                                                        OPTIONAL
    -- This IE shall be present if Sync Case = 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
                                                                                 EXTENSION RestrictionStateIndicator PRESENCE optional }
                                                    CRITICALITY ignore
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION CoverageIndicator
                                                                                                                 PRESENCE optional }
      ID id-AntennaColocationIndicator
                                                                                                                 PRESENCE optional
                                            CRITICALITY ignore
                                                                        EXTENSION AntennaColocationIndicator
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                        EXTENSION HCS-Prio
                                                                                                                 PRESENCE optional }
      ID id-CellCapabilityContainer-TDD
                                                                                                                       PRESENCE optional } |
                                                    CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
     ID id-SNA-Information
                                                                                                                 PRESENCE optional },
                                                    CRITICALITY ignore EXTENSION SNA-Information
NeighbouringTDDCellMeasurementInformation ::= SEOUENCE {
    uC-ID
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlot
                                        TimeSlot.
                                                                    OPTIONAL,
    midambleShiftAndBurstType
                                        MidambleShiftAndBurstType
                                                                    OPTIONAL,
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
NeighbouringTDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlotLCR
                                        TimeSlotLCR
                                                                    OPTIONAL,
                                        MidambleShiftLCR
    midambleShiftLCR
                                                                    OPTIONAL,
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
    iE-Extensions
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,
                                                        OPTIONAL,
    dPCHConstantValue
                                    DPCHConstantValue
    pCCPCH-Power
                                    PCCPCH-Power
                                                             OPTIONAL.
    restrictionStateIndicator
                                    RestrictionStateIndicator
                                                                     OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { { Neighbouring-LCR-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    . . .
Neighbouring-LCR-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                     EXTENSION
                                                                                 CoverageIndicator
                                                                                                                     PRESENCE optional }
      ID id-AntennaColocationIndicator
                                                                                 AntennaColocationIndicator
                                                                                                                     PRESENCE optional
                                            CRITICALITY ignore
                                                                     EXTENSION
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                                 HCS-Prio
                                                                                                                     PRESENCE optional }
                                                                     EXTENSION
      ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore
                                                                                 CellCapabilityContainer-TDD-LCR
                                                                                                                     PRESENCE optional }
                                                                     EXTENSION
     ID id-SNA-Information
                                            CRITICALITY ignore
                                                                                 SNA-Information
                                                                                                                     PRESENCE optional },
                                                                     EXTENSION
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)
OnModification ::= SEQUENCE {
    measurementThreshold
                            MeasurementThreshold,
                            ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
OnModification-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
OnModificationInformation ::= SEOUENCE {
    informationThreshold
                            InformationThreshold
                                                    OPTIONAL,
    iE-Extensions
                            ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
```

```
OnModificationInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
    terminating-background-call,
    terminating-low-priority-signalling,
    terminating-high-priority-signalling,
    terminating-cause-unknown
-- See in [16]
PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
    p-tmsi-gsm-map,
    imsi-ds-41,
    tmsi-ds-41,
-- See in [16]
PartialReportingIndicator ::= ENUMERATED {
    partial-reporting-allowed
PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included,
    crc-not-included
PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step 0.1dBm
PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem
PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
    iE-Extensions
                                    ProtocolExtensionContainer { PCH-InformationItem-ExtIEs} } OPTIONAL,
PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
PC-Preamble ::= INTEGER(0..7,...)
Periodic ::= SEOUENCE {
    reportPeriodicity
                            ReportPeriodicity,
    iE-Extensions
                            ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PeriodicInformation ::= SEQUENCE {
    informationReportPeriodicity
                                        InformationReportPeriodicity,
                                        ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
    iE-Extensions
PeriodicInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Permanent-NAS-UE-Identity ::= CHOICE {
    imsi
                IMSI,
    . . .
Phase-Reference-Update-Indicator ::= ENUMERATED {
    phase-reference-needs-to-be-changed
PLMN-Identity ::= OCTET STRING (SIZE(3))
PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
PowerOffset
                        ::= INTEGER (0..24)
PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters
PRCDeviation ::= ENUMERATED {
    prcd1,
   prcd2,
   prcd5,
   prcd10,
    . . .
```

```
Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PrimaryCPICH-Power
                           ::= INTEGER (-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm
PrimaryCPICH-EcNo
                           ::= INTEGER (-30..30)
Primary-CPICH-Usage-For-Channel-Estimation ::= ENUMERATED {
  primary-CPICH-may-be-used,
  primary-CPICH-shall-not-be-used
PrimaryCCPCH-RSCP
                           ::= INTEGER (0..91)
-- Mapping of non-negative values 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
PriorityOueue-Id ::= INTEGER (0..maxNrOfPrioOueues-1)
PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem
PriorityQueue-InfoItem ::= SEQUENCE {
    priorityQueue-Id
                                        PriorityQueue-Id,
    associatedHSDSCH-MACdFlow
                                        HSDSCH-MACdFlow-ID,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    t1
                                        T1,
    discardTimer
                                        DiscardTimer
                                                                    OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                    OPTIONAL,
    mACdPDU-Size-Index
                                        MACdPDU-Size-IndexList,
    rLC-Mode
                                        RLC-Mode,
    iE-Extensions
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }
                                                                                                                 OPTIONAL,
    . . .
```

```
PriorityOueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF ModifyPriorityQueue
PriorityQueue-InfoItem-to-Add ::= SEQUENCE {
    priorityQueue-Id
                                        PriorityQueue-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,
                                        ProtocolExtensionContainer { { PriorityOueue-InfoItem-to-Add-ExtIEs } } 
    iE-Extensions
                                                                                                                        OPTIONAL,
PriorityQueue-InfoItem-to-Add-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
PriorityOueue-InfoItem-to-Modify ::= SEOUENCE {
    priorityOueue-Id
                                        PriorityOueue-Id,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                                 OPTIONAL,
                                                                                 OPTIONAL,
    discardTimer
                                        DiscardTimer
                                                                                 OPTIONAL,
    mAC-hsWindowSize
                                        MAC-hsWindowSize
                                                                                 OPTIONAL,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                 OPTIONAL,
    mACdPDU-Size-Index-to-Modify
                                        MACdPDU-Size-IndexList-to-Modify
                                                                                             OPTIONAL,
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } }
    iE-Extensions
                                                                                                                           OPTIONAL.
PriorityOueue-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 {
    priorityQueueId
                                        PriorityQueue-Id,
                                        SchedulingPriorityIndicator
    schedulingPriorityIndicator
                                                                                                                      OPTIONAL,
    discardTimer
                                        DiscardTimer
                                                                                                                      OPTIONAL,
    mAChsGuaranteedBitRate
                                        MAChsGuaranteedBitRate
                                                                                                                      OPTIONAL,
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs} }
    iE-Extensions
                                                                                                                                        OPTIONAL,
PriorityQueue-InfoItem-to-Modify-Unsynchronised-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
PropagationDelay
                    ::= INTEGER (0..255)
PunctureLimit
                     ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- Q
QE-Selector ::= ENUMERATED {
    selected,
   non-selected
-- 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 {
    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 {
   gA-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,
   qPS-UTC-Model
                                             GPS-UTC-Model
                                                                                       OPTIONAL,
                                             GPS-Almanac
   qPS-Almanac
                                                                                       OPTIONAL,
   gPS-RealTime-Integrity
                                             GPS-RealTime-Integrity
                                                                                       OPTIONAL,
   qPS-RX-POS
                                             GPS-RX-POS
                                                                                       OPTIONAL,
                                             GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
    sFNSFN-GA-AccessPointPosition
   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
    -- 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 ::= {
           ::= ENUMERATED {
RLC-Mode
   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 ::= SEQUENCE {
```

```
uplinkRTLoadValue
                                INTEGER(0..100),
        downlinkRTLoadValue
                                INTEGER(0..100)
RxTimingDeviationForTA
                                    ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
-- For 1.28Mcps TDD this IE must be set to 0.
Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]
Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
--According to mapping in [24][1.28Mcps TDD only]
-- S
                    ::= OCTET STRING (SIZE (2))
SAC
SAI ::= SEQUENCE {
    pLMN-Identity
                        PLMN-Identity,
   1 AC
                        LAC,
    sAC
    iE-Extensions
                        ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SAT-ID ::= INTEGER (0..63)
SCH-TimeSlot
                           ::= INTEGER (0..6)
                                ::= INTEGER(0..100)
ScaledAdjustmentRatio
-- AdjustmentRatio = ScaledAdjustmentRatio / 100
Secondary-CCPCH-Info::= SEQUENCE {
    fDD-S-CCPCH-Offset
                                            FDD-S-CCPCH-Offset,
    dl-ScramblingCode
                                            DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
    dl-TFCS
                                            TFCS,
                                            SecondaryCCPCH-SlotFormat,
    secondaryCCPCH-SlotFormat
    tFCI-Presence
                                            TFCI-Presence OPTIONAL,
    -- This IE shall be present only if the Secondary CCPCH Slot Format IE is equal to any of the values from 8 to 17
    multiplexingPosition
                                            MultiplexingPosition,
    sTTD-Indicator
                                            STTD-Indicator,
    fACH-PCH-InformationList
                                            FACH-PCH-InformationList,
    iB-schedulingInformation
                                            IB-SchedulingInformation,
    iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-ExtIEs} } OPTIONAL,
    . . .
Secondary-CCPCH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
Secondary-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS
                                            TFCS,
    tFCI-Coding
                                            TFCI-Coding,
                                            Secondary-CCPCH-TDD-InformationList,
    secondary-CCPCH-TDD-InformationList
    fACH-InformationList
                                            FACH-InformationList,
    pCH-InformationList
                                            PCH-InformationList,
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Secondary-CCPCH-Info-TDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information ::= SEQUENCE {
  dl-ScramblingCode
                                            DL-ScramblingCode,
   fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
   iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CPICH-Information-ExtIEs} } OPTIONAL,
    . . .
Secondary-CPICH-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CPICH-Information-Change ::= CHOICE {
new-secondary-CPICH
                                    Secondary-CPICH-Information,
secondary-CPICH-shall-not-be-used
                                  NULL,
Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
   dl-TFCS
                                            TFCS.
    tFCI-Coding
                                            TFCI-Coding,
    secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList
                                            FACH-InformationList,
    pCH-InformationList
                                            PCH-InformationList,
    iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem
Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
    tFCI-Presence
                                    TFCI-Presence,
    secondary-CCPCH-TDD-Code-Information
                                                         Secondary-CCPCH-TDD-Code-Information,
```

```
tDD-PhysicalChannelOffset
                                    TDD-PhysicalChannelOffset,
    repetitionLength
                                    RepetitionLength,
    repetitionPeriod
                                    RepetitionPeriod.
    iE-Extensions
                                    ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem
Secondary-LCR-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                                TimeSlotLCR,
    midambleShiftLCR
                                                MidambleShiftLCR,
    tFCI-Presence
                                                TFCI-Presence,
    secondary-LCR-CCPCH-TDD-Code-Information
                                                Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset
                                                TDD-PhysicalChannelOffset,
    repetitionLength
                                                RepetitionLength,
    repetitionPeriod
                                                RepetitionPeriod,
                                                ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem
Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
                                    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,
   iE-Extensions
                                    ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
SecondInterleavingMode ::= ENUMERATED {
    frame-related.
    timeslot-related.
Seed ::= INTEGER (0..63)
SFN ::= INTEGER (0..4095)
SFNSFN-FDD ::= INTEGER(0..614399)
SFNSFN-TDD ::= INTEGER(0..40961)
GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE
    geographicalCoordinate
                                                GeographicalCoordinate,
    altitudeAndDirection
                                                GA-AltitudeAndDirection OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
    . . .
GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit
                                        SFNSFNChangeLimit
                                                                             OPTIONAL,
   predictedSFNSFNDeviationLimit
                                        PredictedSFNSFNDeviationLimit
                                                                             OPTIONAL,
                                    ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }
   iE-Extensions
                                                                                                                        OPTIONAL,
SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfull Neighbouring Cell SFNSFNObserved Time Difference Measurement Information
                                                                                         SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
           uC-ID
                        UC-ID,
            sFNSFNValue
                                        SFNSFNValue,
           sFNSFNQuality
                                        SFNSFNQuality
                                                                         OPTIONAL,
           sFNSFNDriftRate
                                        SFNSFNDriftRate,
            sFNSFNDriftRateQuality
                                        SFNSFNDriftRateQuality
                                                                     OPTIONAL,
```

```
sFNSFNTimeStampInformation SFNSFNTimeStampInformation,
           iE-Extensions
                                     ProtocolExtensionContainer { {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
                                                                                           OPTIONAL.
       },
   unsuccessfull Neighbouring Cell SFNSFNObserved Time Difference Measurement Information \\
                                                                                   SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
       SEQUENCE {
           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
                          SFN,
   sFNSFNTimeStamp-TDD
                          SFNSFNTimeStamp-TDD,
SFNSFNTimeStamp-TDD::= SEQUENCE {
   sFN
                      SFN,
   timeSlot
                      TimeSlot,
                                  ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
   iE-Extensions
SFNSFNTimeStamp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

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```
SFNSFNValue ::= CHOICE {
    sFNSFN-FDD
                   SFNSFN-FDD,
    sFNSFN-TDD
                   SFNSFN-TDD,
    . . .
SID ::= INTEGER (0..maxNrOfPDUIndexes-1)
SIR-Error-Value ::= INTEGER (0..125)
SIR-Error-Value-IncrDecrThres
                                    ::= INTEGER (0..124)
SIR-Value
                      ::= INTEGER (0..63)
-- According to mapping in [11]/[14]
SIR-Value-IncrDecrThres ::= INTEGER (0..62)
SecondaryCCPCH-SlotFormat ::= INTEGER (0..17,...)
-- refer to [8]
SNA-Information ::= SEQUENCE {
   pLMN-Identity PLMN-Identity,
  listOfSNAs
                       ListOfSNAs
                                                                       OPTIONAL,
                       ProtocolExtensionContainer { { SNA-Information-ExtIEs} } OPTIONAL,
  iE-Extensions
SNA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ListOfSNAs ::= SEQUENCE (SIZE (1.. maxNrOfSNAs)) OF SNACode
SNACode ::= INTEGER (0..65535)
SpecialBurstScheduling ::= INTEGER (1..256)
                      ::= INTEGER (0..1048575)
S-RNTI
-- From 0 to 2^20-1
S-RNTI-Group
                       ::= SEQUENCE {
    sRNTI
                           S-RNTI,
    sRNTI-BitMaskIndex
                           ENUMERATED {
       b1,
       b2,
       b3,
       b4,
       b5,
       b6,
       b7,
       b8,
       b9,
       b10,
```

```
b11,
       b12,
       b13.
       b14,
       b15,
       b16,
       b17,
       b18,
       b19,...
SRB-Delay ::= INTEGER(0..7,...)
SSDT-SupportIndicator ::= ENUMERATED {
    not-used-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),
                           INTEGER (0..255),
    t-RLFAILURE
-- Unit seconds, Range Os .. 25.5s, Step 0.1s
                           ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }
    iE-Extensions
                                                                                                    OPTIONAL,
    . . .
SynchronisationConfiguration-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SYNC-UL-ProcParameters ::= SEQUENCE {
                                    ENUMERATED {v1, v2, v4, v8, ...},
    maxSYNC-UL-transmissions
                                   INTEGER (0..3, ...),
    powerRampStep
    . . .
```

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```
-- T
T1 ::= ENUMERATED {v10, v20, v30, v40, v50, v60, v70, v80, v90, v100, v120, v140, v160, v200, v300, v400, ...}
TDD-AckNack-Power-Offset ::= INTEGER (-7..8,...)
-- Unit dB, Range -7dB .. +8dB, Step 1dB
TDD-ChannelisationCode
                                 ::= ENUMERATED {
    chCodeldiv1.
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    . . .
TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode
                                     TDD-ChannelisationCode,
    modulation
                                     Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem
TDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode
                                         UL-FP-Mode OPTIONAL,
    toAWS
                                         ToAWS
                                                      OPTIONAL,
    toAWE
                                         ToAWE
                                                      OPTIONAL,
```

```
transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        TDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TnlOos
                                        CRITICALITY
                                                                     EXTENSION
                                                                                TnlQos PRESENCE optional },
                                                        ignore
TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem
TDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
    ul-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    dl-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    ul-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                                                                                            PRESENCE optional }
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
     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,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-LCR-Information ::= SEOUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem
TDD-DL-Code-LCR-InformationItem ::= SEOUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR.
    tdd-DL-DPCH-TimeSlotFormat-LCR
                                            TDD-DL-DPCH-TimeSlotFormat-LCR,
                                            ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }
    iE-Extensions
                                                                                                                          OPTIONAL,
    . . .
```

```
TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                                OPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    . . .
QPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TDD-DPCHOffset ::= CHOICE {
    initialOffset
                        INTEGER (0..255),
    noinitialOffset
                        INTEGER (0..63)
TDD-PhysicalChannelOffset
                                ::= INTEGER (0..63)
TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2.
    step-size3,
TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
    . . .
TDD-UL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem
TDD-UL-Code-InformationItem ::= SEQUENCE {
   dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
                                    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,
```

```
ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }
    iE-Extensions
                                                                                                                           OPTIONAL,
TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                                QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    . . .
OPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)
EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    . . .
TFCI-Presence ::= ENUMERATED {
    present,
    not-present
TFCI-SignallingMode ::= ENUMERATED {
    normal,
    not-Used-split
-- The value "Not Used" shall not be used by the SRNC. The procedure shall be rejected by the DRNC if the value "Not Used" is received.
                    ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence
                    ::= 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,
        tGL1
                        GapLength,
        t.GL2
                        GapLength
                                   OPTIONAL,
        tGD
                        TGD,
       tGPL1
                        GapDuration,
       not-to-be-used-1
                                    GapDuration OPTIONAL,
            -- This IE shall never be included in the SEQUENCE. If received it shall be ignored
       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 {
       always-Used-no-Split-in-TFCI
                                              TFCS-TFCSList,
       not-Used-split-in-TFCI
                                              NULL,
       -- This choice shall never be made by the SRNC and the DRNC shall consider the procedure as failed if it is received.
                       ProtocolExtensionContainer { { TFCS-ExtIEs} }
                                                                         OPTIONAL,
    iE-Extensions
TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
       cTFC
                           TFCS-CTFC,
       tFC-Beta
                       TransportFormatCombination-Beta
                                                          OPTIONAL,
       -- The IE shall be present if the TFCS concerns a UL DPCH [FDD - or PRACH channel in FDD]
                           iE-Extensions
    . . .
TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-CTFC ::= CHOICE {
    ctfc2bit
                                      INTEGER (0..3),
    ctfc4bit
                                      INTEGER (0..15),
    ctfc6bit
                                      INTEGER (0..63),
    ctfc8bit
                                      INTEGER (0..255),
    ctfc12bit
                                      INTEGER (0..4095),
    ctfc16bit
                                      INTEGER (0..65535),
    ctfcmaxbit
                                      INTEGER (0..maxCTFC)
TransportFormatSet ::= SEQUENCE {
    dynamicParts
                           TransportFormatSet-DynamicPartList,
                           TransportFormatSet-Semi-staticPart,
    semi-staticPart
                           ProtocolExtensionContainer { TransportFormatSet-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-DynamicPartList ::= SEOUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
       nrOfTransportBlocks
                                NrOfTransportBlocks,
       transportBlockSize
                                TransportBlockSize
                                                        OPTIONAL
       -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
                           TransportFormatSet-ModeDP,
                                ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
        iE-Extensions
        . . .
TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeDP ::= CHOICE {
                       TDD-TransportFormatSet-ModeDP,
   notApplicable
                       NULL,
    . . .
TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation
                                            TransmissionTimeIntervalInformation
                                                                                     OPTIONAL.
    -- This IE shall be present if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is
absent.
                                            ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
    SEOUENCE {
       transmissionTimeInterval
                                    TransmissionTimeIntervalDynamic,
       iE-Extensions
                                ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
TransmissionTimeIntervalInformation-ExtlEs 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 {
    transmissionTime
                            TransmissionTimeIntervalSemiStatic,
    channelCoding
                            ChannelCodingType,
    codingRate
                        CodingRate
                                                OPTIONAL
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute
                                RateMatchingAttribute,
    cRC-Size
                        CRC-Size,
                        TransportFormatSet-ModeSSP,
    mode
                            ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
    iE-Extensions
TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeSSP ::= CHOICE {
                    SecondInterleavingMode,
    notApplicable
                            NULL,
    . . .
TransportLayerAddress
                                ::= BIT STRING (SIZE(1..160, ...))
TrCH-SrcStatisticsDescr
                            ::= ENUMERATED {
    speech,
    rRC,
    unknown,
    . . .
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
TxDiversityIndicator
                       ::= ENUMERATED {
    true,
    false
TypeOfError ::= ENUMERATED {
    not-understood,
    missing,
    . . .
```

```
::= 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,...),
    iE-Extensions
                                        ProtocolExtensionContainer { { UE-Capabilities-Info-ExtIEs } }
                                                                                                               OPTIONAL,
    . . .
UE-Capabilities-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
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 ::= SEOUENCE {
    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,
```

```
ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }
    iE-Extensions
                                                                                                                      OPTIONAL,
UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem
UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot
                                TimeSlot,
    uL-TimeslotISCP
                                UL-TimeslotISCP.
   iE-Extensions
                                ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeSlot-ISCP-LCR-InfoItem
UL-TimeSlot-ISCP-LCR-InfoItem ::= SEOUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    iSCP
                                    UL-Timeslot-ISCP-Value,
    iE-Extensions
                                    ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} }
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,
```

```
UL-SIR
                        ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.
UC-ID ::= SEQUENCE {
    rNC-ID
                        RNC-ID,
    C-TD
                        C-ID,
    iE-Extensions
                            ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCCH-SlotFormat
                            ::= INTEGER (0..5,...)
UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
UL-ScramblingCode ::= SEQUENCE
    ul-ScramblingCodeNumber
                                UL-ScramblingCodeNumber,
    ul-ScramblingCodeLength
                                UL-ScramblingCodeLength,
    iE-Extensions
                            ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
UL-ScramblingCodeNumber
                                ::= INTEGER (0..16777215)
UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
                                        UL-Synchronisation-StepSize,
    uL-Synchronisation-StepSize
    uL-Synchronisation-Frequency
                                            UL-Synchronisation-Frequency,
    iE-Extensions
                                    ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }
                                                                                                                        OPTIONAL,
    . . .
```

```
UL-Synchronisation-Parameters-LCR-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-Synchronisation-StepSize ::= INTEGER (1..8)
UL-Synchronisation-Frequency ::= INTEGER (1..8)
UL-TimeslotISCP
                        ::= INTEGER (0..127)
-- According to mapping in [14]
Unidirectional-DCH-Indicator
                              ::= ENUMERATED {
    downlink-DCH-only,
    uplink-DCH-only
                        ::= INTEGER (0..65535)
URA-ID
URA-Information ::= SEOUENCE {
    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 ::= SEOUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item
RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID
                                    ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ID
                       ::= INTEGER (0..255)
USCH-Information ::= SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem
USCH-InformationItem ::= SEQUENCE {
    uSCH-ID
                                        USCH-ID,
    ul-CCTrCH-ID
                                        CCTrCH-ID.
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    rb-Info
                                        RB-Info,
```

```
ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                         CRITICALITY ignore EXTENSION TrafficClass
                                                                               PRESENCE mandatory }
    { ID id-BindingID
                                                                              BindingID PRESENCE
                                                                                                                  optional }|
                                           CRITICALITY ignore
                                                                   EXTENSION
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                           CRITICALITY ignore
                                                                   EXTENSION
                                                                              TransportLayerAddress
                                                                                                         PRESENCE
                                                                                                                   optional },
    -- Shall be ignored if bearer establishment with ALCAP.
-- V
-- 7.
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
__ **********************
```

```
::= ENUMERATED { reject, ignore, notify }
Criticality
Presence
               ::= ENUMERATED { optional, conditional, mandatory }
PrivateIE-ID ::= CHOICE {
   local
                      INTEGER (0.. maxPrivateIEs),
                      OBJECT IDENTIFIER
   global
ProcedureCode
                 ::= INTEGER (0..255)
ProcedureID ::= SEQUENCE {
   procedureCode
                           ProcedureCode,
   ddMode
                       ENUMERATED { tdd, fdd, common, ... }
                ::= INTEGER (0..maxProtocolIEs)
ProtocolIE-ID
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
                                                          ProcedureCode ::= 1
id-commonTransportChannelResourcesRelease
id-compressedModeCommand
                                                          ProcedureCode ::= 2
id-downlinkPowerControl
                                                          ProcedureCode ::= 3
id-downlinkPowerTimeslotControl
                                                         ProcedureCode ::= 4
id-downlinkSignallingTransfer
                                                          ProcedureCode ::= 5
id-errorIndication
                                                          ProcedureCode ::= 6
id-dedicatedMeasurementFailure
                                                          ProcedureCode ::= 7
id-dedicatedMeasurementInitiation
                                                          ProcedureCode ::= 8
id-dedicatedMeasurementReporting
                                                          ProcedureCode ::= 9
id-dedicatedMeasurementTermination
                                                          ProcedureCode ::= 10
                                                          ProcedureCode ::= 11
id-paging
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
id-unSynchronisedRadioLinkReconfiguration
                                                          ProcedureCode ::= 24
                                                          ProcedureCode ::= 25
id-uplinkSignallingTransfer
id-commonMeasurementFailure
                                                          ProcedureCode ::= 26
id-commonMeasurementInitiation
                                                          ProcedureCode ::= 27
id-commonMeasurementReporting
                                                          ProcedureCode ::= 28
id-commonMeasurementTermination
                                                          ProcedureCode ::= 29
id-informationExchangeFailure
                                                          ProcedureCode ::= 30
id-informationExchangeInitiation
                                                          ProcedureCode ::= 31
                                                          ProcedureCode ::= 32
id-informationReporting
                                                          ProcedureCode ::= 33
id-informationExchangeTermination
id-reset
                                                          ProcedureCode ::= 35
id-radioLinkActivation
                                                          ProcedureCode ::= 36
                                                          ProcedureCode ::= 37
id-qERANuplinkSignallingTransfer
id-radioLinkParameterUpdate
                                                         ProcedureCode ::= 38
  -- Lists
__ **********************
maxRateMatching
                                      INTEGER ::= 256
                                      INTEGER ::= 10
maxNoOfDSCHs
maxNoOfDSCHsLCR
                                      INTEGER ::= 10
maxNoOfRB
                                      INTEGER ::= 32
maxNoOfUSCHs
                                      INTEGER ::= 10
maxNoOfUSCHsLCR
                                      INTEGER ::= 10
                                      INTEGER ::= 1024
maxNrOfTFCs
```

```
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
maxTTT-Count
                                        INTEGER ::= 4
maxCTFC
                                       INTEGER ::= 16777215
maxNrOfNeighbouringRNCs
                                       INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC
                                       INTEGER ::= 256
maxNrOfGSMNeighboursPerRNC
                                        INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC
                                        INTEGER ::= 256
                                        INTEGER ::= 8
maxNrOfFACHs
maxNrOfLCRTDDNeighboursPerRNC
                                        INTEGER ::= 256
maxFACHCountPlus1
                                        INTEGER ::= 10
maxIBSEG
                                        INTEGER ::= 16
maxNrOfSCCPCHs
                                        INTEGER ::= 8
maxTGPS
                                        INTEGER ::= 6
maxNrOfTS
                                        INTEGER ::= 15
maxNrOfLevels
                                        INTEGER ::= 256
maxNrOfTsLCR
                                        INTEGER ::= 6
maxNoSat
                                       INTEGER ::= 16
maxNoGPSTypes
                                       INTEGER ::= 8
maxNrOfMeasNCell
                                       INTEGER ::= 96
maxNrOfMeasNCell-1
                                       INTEGER ::= 95
                                                       -- maxNrOfMeasNCell - 1
maxResetContext
                                        INTEGER ::= 250
maxResetContextGroup
                                        INTEGER ::= 32
                                        INTEGER ::= 8
maxNrOfHAROProc
maxNrOfHSSCCHCodes
                                        INTEGER ::= 4
maxNrOfHSSICHs
                                       INTEGER ::= 4
maxNrOfMACdFlows
                                        INTEGER ::= 8
maxNrOfMACdFlows-1
                                        INTEGER ::= 7
                                                        -- maxNrOfMACdFlows - 1
maxNrOfPDUIndexes
                                        INTEGER ::= 8
maxNrOfPDUIndexes-1
                                        INTEGER ::= 7
                                                        -- maxNrOfPDUIndexes - 1
maxNrOfPrioQueues
                                        INTEGER ::= 8
maxNrOfPrioOueues-1
                                        INTEGER ::= 7 -- maxNrOfPrioOueues - 1
maxNrOfSNAs
                                        INTEGER ::= 65536
maxNrOfSatAlmanac-maxNoSat
                                        INTEGER ::= 16
__ **********************************
```

-- IEs

```
id-AllowedOueuingTime
                                                                             ProtocolIE-ID ::= 4
id-Allowed-Rate-Information
                                                                             ProtocolIE-ID ::= 42
id-AntennaColocationIndicator
                                                                             ProtocolIE-ID ::= 309
id-BindingID
                                                                             ProtocolIE-ID ::= 5
id-C-ID
                                                                             ProtocolIE-ID ::= 6
id-C-RNTI
                                                                             ProtocolIE-ID ::= 7
id-Cell-Capacity-Class-Value
                                                                             ProtocolIE-ID ::= 303
id-CFN
                                                                             ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier
                                                                             ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier
                                                                             ProtocolIE-ID ::= 10
id-Cause
                                                                             ProtocolIE-ID ::= 11
id-CoverageIndicator
                                                                             ProtocolIE-ID ::= 310
id-CriticalityDiagnostics
                                                                             ProtocolIE-ID ::= 20
id-ContextInfoItem-Reset
                                                                             ProtocolIE-ID ::= 211
id-ContextGroupInfoItem-Reset
                                                                             ProtocolIE-ID ::= 515
id-D-RNTI
                                                                             ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication
                                                                             ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD
                                                                             ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD
                                                                             ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD
                                                                             ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD
                                                                             ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRgstTDD
                                                                             ProtocolIE-ID ::= 33
id-DCH-FDD-Information
                                                                             ProtocolIE-ID ::= 34
id-DCH-TDD-Information
                                                                             ProtocolIE-ID ::= 35
id-FDD-DCHs-to-Modify
                                                                             ProtocolIE-ID ::= 39
id-TDD-DCHs-to-Modify
                                                                             ProtocolIE-ID ::= 40
id-DCH-InformationResponse
                                                                             ProtocolIE-ID ::= 43
id-DCH-Rate-InformationItem-RL-CongestInd
                                                                             ProtocolIE-ID ::= 38
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 45
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
                                                                             ProtocolIE-ID ::= 46
                                                                             ProtocolIE-ID ::= 47
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD
id-DL-CCTrCH-InformationListIE-PhyChReconfRgstTDD
                                                                             ProtocolIE-ID ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD
                                                                             ProtocolIE-ID ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                                             ProtocolIE-ID ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                                             ProtocolIE-ID ::= 52
id-DL-CCTrCH-InformationList-RL-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-ReconfRgstFDD
                                                                             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-Rgst
                                                                             ProtocolIE-ID ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rgst
                                                                             ProtocolIE-ID ::= 69
```

id-DPC-Mode	ProtocolIE-ID ::= 12
id-DRXCycleLengthCoefficient	ProtocolIE-ID ::= 70
id-DedicatedMeasurementObjectType-DM-Fail-Ind	ProtocolIE-ID ::= 470
id-DedicatedMeasurementObjectType-DM-Fail	ProtocolIE-ID ::= 471
id-DedicatedMeasurementObjectType-DM-Rprt	ProtocolIE-ID ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst	ProtocolIE-ID ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp	ProtocolIE-ID ::= 73
id-DedicatedMeasurementType	ProtocolIE-ID ::= 74
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD	ProtocolIE-ID ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD	ProtocolIE-ID ::= 83
id-Guaranteed-Rate-Information	ProtocolIE-ID ::= 41
id-IMSI	ProtocolIE-ID ::= 84
id-HCS-Prio	ProtocolIE-ID ::= 311
id-L3-Information	ProtocolIE-ID ::= 85
id-AdjustmentPeriod	ProtocolIE-ID ::= 90
id-MaxAdjustmentStep	ProtocolIE-ID ::= 91
id-MeasurementFilterCoefficient	ProtocolIE-ID ::= 92
id-MessageStructure	ProtocolIE-ID ::= 57
id-MeasurementID	ProtocolIE-ID ::= 93
id-Neighbouring-GSM-CellInformation	ProtocolIE-ID ::= 13
id-Neighbouring-UMTS-CellInformationItem	ProtocolIE-ID ::= 95
id-NRT-Load-Information-Value	ProtocolIE-ID ::= 305
id-NRT-Load-Information-Value-IncrDecrThres	ProtocolIE-ID ::= 306
id-PagingArea-PagingRqst	ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation	ProtocolIE-ID ::= 103
id-PartialReportingIndicator	ProtocolIE-ID ::= 472
id-Permanent-NAS-UE-Identity	ProtocolIE-ID ::= 17
id-PowerAdjustmentType	ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation	ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRqstFDD	ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRqstTDD	ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRqstFDD	ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRgstTDD	ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRost	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-SetupRgstTDD	ProtocolIE-ID ::= 119
id-RL-InformationItem-RL-CongestInd	ProtocolIE-ID ::= 55
id-RL-InformationItem-DM-Rprt	ProtocolIE-ID ::= 120
id-RL-InformationItem-DM-Rqst	ProtocolIE-ID ::= 121
id-RL-InformationItem-DM-Rsp	ProtocolIE-ID ::= 122
id-RL-InformationItem-RL-PreemptRequiredInd	ProtocolIE-ID ::= 2
id-RL-InformationItem-RL-SetupRqstFDD	ProtocolIE-ID ::= 123
id-RL-InformationList-RL-CongestInd	ProtocolIE-ID ::= 56
id-RL-InformationList-RL-AdditionRqstFDD	ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRqst	ProtocolIE-ID ::= 125
id-RL-InformationList-RL-PreemptRequiredInd	ProtocolIE-ID ::= 1
id-RL-InformationList-RL-ReconfPrepFDD	ProtocolIE-ID ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD	ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD	ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-SetupRspTDD	ProtocoliE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD	ProtocoliE-ID ::= 130
14 12 11101 action coponiction in hartetomopius	1100000111 10 130

id-RL-InformationResponseItem-RL-ReconfReadyFDD	ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD	ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD	ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD	ProtocolIE-ID ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD	ProtocolIE-ID ::= 135
id-RL-InformationResponseList-RL-ReconfRspFDD	ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD	ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD	ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail	ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt	ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst	ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp	ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd	ProtocolIE-ID ::= 146
id-RL-Set-Information-RL-RestoreInd	ProtocoliE-ID ::= 147
id-RL-Set-Information-RL-Restorernd id-RL-Set-Successful-InformationItem-DM-Fail	ProtocoliE-ID ::= 473
id-RL-Set-Unsuccessful-InformationItem-DM-Fail	
	ProtocolIE-ID ::= 474
id-RL-Set-Unsuccessful-InformationItem-DM-Fail-Ind	ProtocolIE-ID ::= 475
id-RL-Successful-InformationItem-DM-Fail	ProtocolIE-ID ::= 476
id-RL-Unsuccessful-InformationItem-DM-Fail	ProtocolIE-ID ::= 477
id-RL-Unsuccessful-InformationItem-DM-Fail-Ind	ProtocolIE-ID ::= 478
id-ReportCharacteristics	ProtocolIE-ID ::= 152
id-Reporting-Object-RL-FailureInd	ProtocolIE-ID ::= 153
id-Reporing-Object-RL-RestoreInd	ProtocolIE-ID ::= 154
id-RT-Load-Value	ProtocolIE-ID ::= 307
id-RT-Load-Value-IncrDecrThres	ProtocolIE-ID ::= 308
id-S-RNTI	ProtocolIE-ID ::= 155
id-ResetIndicator	ProtocolIE-ID ::= 244
id-RNC-ID	ProtocolIE-ID ::= 245
id-SAI	ProtocolIE-ID ::= 156
id-SRNC-ID	ProtocolIE-ID ::= 157
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD	ProtocolIE-ID ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD	ProtocolIE-ID ::= 160
id-TransportBearerID	ProtocolIE-ID ::= 163
id-TransportBearerRequestIndicator	ProtocolIE-ID ::= 164
id-TransportLayerAddress	ProtocolIE-ID ::= 165
id-TypeOfError	ProtocolIE-ID ::= 140
id-UC-ID	ProtocolIE-ID ::= 166
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD	ProtocoliE-ID ::= 167
-	ProtocoliE-ID ::= 167 ProtocoliE-ID ::= 169
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	ProtocolIE-ID ::= 171
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 172
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD	ProtocolIE-ID ::= 173
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD	ProtocolIE-ID ::= 174
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 175
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD	ProtocolIE-ID ::= 176
id-UL-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 177
id-UL-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 178
id-UL-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 179
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD	ProtocolIE-ID ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD	ProtocolIE-ID ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD	ProtocolIE-ID ::= 182
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 183
id-UL-SIRTarget	ProtocolIE-ID ::= 184
id-URA-Information	ProtocolIE-ID ::= 185

id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD	ProtocolIE-ID ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD	ProtocolIE-ID ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD	ProtocolIE-ID ::= 190
id-Active-Pattern-Sequence-Information	ProtocolIE-ID ::= 193
id-AdjustmentRatio	ProtocolIE-ID ::= 194
id-CauseLevel-RL-AdditionFailureFDD	ProtocolIE-ID ::= 197
id-CauseLevel-RL-AdditionFailureTDD	ProtocolIE-ID ::= 198
id-CauseLevel-RL-ReconfFailure	ProtocolIE-ID ::= 199
id-CauseLevel-RL-SetupFailureFDD	ProtocolIE-ID ::= 200
id-CauseLevel-RL-SetupFailureTDD	ProtocolIE-ID ::= 201
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 205
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 206
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 207
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 208
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 209
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 210
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 212
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 213
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 214
id-DSCHs-to-Add-TDD	ProtocolIE-ID ::= 215
id-Unused-ProtocolIE-ID-216	ProtocolIE-ID ::= 216
id-DSCH-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 217
id-Unused-ProtocolIE-ID-218	ProtocolIE-ID ::= 218
id-Unused-ProtocolIE-ID-219	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-Unused-ProtocolIE-ID-223	ProtocolIE-ID ::= 223
id-Unused-ProtocolIE-ID-226	ProtocolIE-ID ::= 226
id-DSCH-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 227
id-Unused-ProtocolIE-ID-228	ProtocolIE-ID ::= 228
id-Unused-ProtocolIE-ID-324	ProtocolIE-ID ::= 324
id-Unused-ProtocolIE-ID-324	ProtocoliE-ID ::= 324
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD	ProtocolIE-ID ::= 230
id-Unused-ProtocolIE-ID-29	ProtocolIE-ID ::= 29
id-Unused-ProtocolIE-ID-225	ProtocoliE-ID ::= 235
id-GA-Cell	ProtocoliE-ID ::= 232
id-GA-CellAdditionalShapes	ProtocoliE-ID ::= 3
id-Unused-ProtocolIE-ID-246	ProtocoliE-ID ::= 3 ProtocolIE-ID ::= 246
	ProtocoliE-ID ::= 246 ProtocolIE-ID ::= 255
id-Transmission-Gap-Pattern-Sequence-Information	
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-SetupRgstTDD
                                                                            ProtocolIE-ID ::= 275
id-ClosedLoopModel-SupportIndicator
                                                                            ProtocolIE-ID ::= 276
id-Unused-ProtocolIE-ID-277
                                                                            ProtocolIE-ID ::= 277
id-STTD-SupportIndicator
                                                                             ProtocolIE-ID ::= 279
id-CFNReportingIndicator
                                                                             ProtocolIE-ID ::= 14
id-CNOriginatedPage-PagingRgst
                                                                             ProtocolIE-ID ::= 23
id-InnerLoopDLPCStatus
                                                                             ProtocolIE-ID ::= 24
id-PropagationDelay
                                                                             ProtocolIE-ID ::= 25
id-RxTimingDeviationForTA
                                                                             ProtocolIE-ID ::= 36
id-timeSlot-ISCP
                                                                            ProtocolIE-ID ::= 37
id-CCTrCH-InformationItem-RL-FailureInd
                                                                             ProtocolIE-ID ::= 15
id-CCTrCH-InformationItem-RL-RestoreInd
                                                                             ProtocolIE-ID ::= 16
id-CommonMeasurementAccuracy
                                                                             ProtocolIE-ID ::= 280
id-CommonMeasurementObjectType-CM-Rprt
                                                                             ProtocolIE-ID ::= 281
id-CommonMeasurementObjectType-CM-Rgst
                                                                             ProtocolIE-ID ::= 282
id-CommonMeasurementObjectType-CM-Rsp
                                                                             ProtocolIE-ID ::= 283
id-CommonMeasurementType
                                                                            ProtocolIE-ID ::= 284
id-CongestionCause
                                                                             ProtocolIE-ID ::= 18
id-SFN
                                                                             ProtocolIE-ID ::= 285
id-SFNReportingIndicator
                                                                             ProtocolIE-ID ::= 286
id-InformationExchangeID
                                                                             ProtocolIE-ID ::= 287
id-InformationExchangeObjectType-InfEx-Rprt
                                                                             ProtocolIE-ID ::= 288
id-InformationExchangeObjectType-InfEx-Rgst
                                                                             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-AdditionRgstTDD
                                                                             ProtocolIE-ID ::= 81
id-RL-LCR-InformationResponse-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 86
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD
                                                                            ProtocolIE-ID ::= 87
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                                            ProtocolIE-ID ::= 88
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 89
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                                            ProtocolIE-ID ::= 94
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 96
id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                                            ProtocolIE-ID ::= 97
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadvTDD
                                                                             ProtocolIE-ID ::= 98
id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                            ProtocolIE-ID ::= 100
id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 101
id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                             ProtocolIE-ID ::= 104
id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD
                                                                             ProtocolIE-ID ::= 105
id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD
                                                                             ProtocolIE-ID ::= 106
```

id-timeSlot-ISCP-LCR-List-DL-PC-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
$\verb id-SFNSFNMeasurementThresholdInformation $	ProtocolIE-ID ::= 238
id-Transmitted-Carrier-Power-Value	ProtocolIE-ID ::= 239
id-Transmitted-Carrier-Power-Value-IncrDecrThres	ProtocolIE-ID ::= 240
${ t id} extsf{-TUTRANGPSMeasurementThresholdInformation}$	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-Unused-ProtocolIE-ID-247	ProtocolIE-ID ::= 247
id-Unused-ProtocolIE-ID-295	ProtocolIE-ID ::= 295
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD	ProtocolIE-ID ::= 202
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD	ProtocolIE-ID ::= 203
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 204
id-DSCH-RNTI	ProtocolIE-ID ::= 249
id-DL-PowerBalancing-Information	ProtocolIE-ID ::= 296
id-DL-PowerBalancing-ActivationIndicator	ProtocolIE-ID ::= 297
id-DL-PowerBalancing-UpdatedIndicator	ProtocolIE-ID ::= 298
id-DL-ReferencePowerInformation	ProtocolIE-ID ::= 299
id-Enhanced-PrimaryCPICH-EcNo	ProtocolIE-ID ::= 224
id-IPDL-TDD-ParametersLCR	ProtocolIE-ID ::= 252
id-CellCapabilityContainer-FDD	ProtocolIE-ID ::= 300
id-CellCapabilityContainer-TDD	ProtocolIE-ID ::= 301
id-CellCapabilityContainer-TDD-LCR	ProtocolIE-ID ::= 302
id-RL-Specific-DCH-Info	ProtocolIE-ID ::= 317
id-RL-ReconfigurationRequestFDD-RL-InformationList	ProtocolIE-ID ::= 318
id-RL-ReconfigurationRequestFDD-RL-Information-IEs	ProtocolIE-ID ::= 319
id-RL-ReconfigurationRequestTDD-RL-Information	ProtocolIE-ID ::= 321
${\tt id extsf{-}CommonTransportChannelResourcesInitialisationNotRequired}$	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
${ t id-DelayedActivationInformation-RL-ActivationCmdTDD}$	ProtocolIE-ID ::= 316
${\tt id-neighbouringTDDCellMeasurementInformationLCR}$	ProtocolIE-ID ::= 251
id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD	ProtocolIE-ID ::= 150
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD	ProtocolIE-ID ::= 151
id-PrimCCPCH-RSCP-DL-PC-RqstTDD	ProtocolIE-ID ::= 451
id-HSDSCH-FDD-Information	ProtocolIE-ID ::= 452
id-HSDSCH-FDD-Information-Response	ProtocolIE-ID ::= 453
id-HSDSCH-FDD-Update-Information	ProtocolIE-ID ::= 466
id-HSDSCH-Information-to-Modify	ProtocolIE-ID ::= 456
id-HSDSCHMacdFlowSpecificInformationList-RL-PreemptRequiredInd	ProtocolIE-ID ::= 516
id-HSDSCHMacdFlowSpecificInformationItem-RL-PreemptRequiredInd	ProtocolIE-ID ::= 517
id-HSDSCH-RNTI	ProtocolIE-ID ::= 457
id-HSDSCH-TDD-Information	ProtocolIE-ID ::= 458
id-HSDSCH-TDD-Information-Response	ProtocolIE-ID ::= 459
-	

id-HSDSCH-TDD-Update-Information	ProtocolIE-ID ::= 467
id-HSPDSCH-RL-ID	ProtocolIE-ID ::= 463
id-HSDSCH-MACdFlows-to-Add	ProtocolIE-ID ::= 531
id-HSDSCH-MACdFlows-to-Delete	ProtocolIE-ID ::= 532
id-Angle-Of-Arrival-Value-LCR	ProtocolIE-ID ::= 148
id-TrafficClass	ProtocolIE-ID ::= 158
id-Unused-ProtocolIE-ID-248	ProtocolIE-ID ::= 248
id-Unused-Protocol-ID-253	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
${\sf id ext{-}UL ext{-}CCTrCH ext{-}InformationList ext{-}RL ext{-}AdditionRqstTDD}$	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
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 ::= 514 ProtocoliE-ID ::= 518
id-Primary-CPICH-Usage-For-Channel-Estimation	ProtocoliE-ID ::= 518 ProtocoliE-ID ::= 519
id-Secondary-CPICH-Information-Change	ProtocoliE-ID ::= 519 ProtocoliE-ID ::= 521
id-Unused-Protocol IE-ID-522	ProtocoliE-ID ::= 521 ProtocolIE-ID ::= 522
Ta onabea IIococotte-ID-J22	110000011E-1D 322

```
id-Unused-ProtocolIE-ID-523
                                                                            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

```
__ ********************
-- Container definitions
__ *********************
RNSAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Containers (5) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
    *****************
-- IE parameter types from other modules.
__ **********************
IMPORTS
   maxPrivateIEs,
   maxProtocolExtensions.
   maxProtocolIEs,
   Criticality,
   Presence,
   PrivateIE-ID,
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
__ *********************
-- Class Definition for Protocol IEs
```

```
RNSAP-PROTOCOL-IES ::= CLASS {
                  ProtocolIE-ID
                                                UNIQUE,
   &criticality
                      Criticality,
   &Value,
   &presence
                     Presence
WITH SYNTAX {
   ID
                  &id
   CRITICALITY
                      &criticality
   TYPE
                      &Value
   PRESENCE
                      &presence
-- Class Definition for Protocol IEs
  ***************
RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
                 ProtocolIE-ID
                                                UNIQUE,
   &firstCriticality
                        Criticality,
   &FirstValue,
   &secondCriticality
                        Criticality,
   &SecondValue,
   &presence
                      Presence
WITH SYNTAX {
   ID
                  &id
   FIRST CRITICALITY
                         &firstCriticality
   FIRST TYPE
                      &FirstValue
                         &secondCriticality
   SECOND CRITICALITY
                &SecondValue
   SECOND TYPE
                      &presence
   PRESENCE
-- Class Definition for Protocol Extensions
RNSAP-PROTOCOL-EXTENSION ::= CLASS {
                  ProtocolIE-ID
                                            UNIQUE,
   &criticality
                        Criticality,
   &Extension,
   &presence
                  Presence
WITH SYNTAX {
   ID
                  &id
   CRITICALITY
                      &criticality
```

```
EXTENSION
                     &Extension
   PRESENCE
                     &presence
-- Class Definition for Private IEs
RNSAP-PRIVATE-IES ::= CLASS {
                 PrivateIE-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}),
                                                        ({IEsSetParam}{@id}),
   criticality
                  RNSAP-PROTOCOL-IES.&criticality
                     RNSAP-PROTOCOL-IES.&Value
                                                         ({IEsSetParam}{@id})
     -- Container for Protocol IE Pairs
  ******************
ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-FieldPair {{IEsSetParam}}
ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
   id
                 RNSAP-PROTOCOL-IES-PAIR.&id
                                                  ({IEsSetParam}),
```

END

```
({IEsSetParam}{@id}),
   firstCriticality
                       RNSAP-PROTOCOL-IES-PAIR.&firstCriticality
   firstValue
                    RNSAP-PROTOCOL-IES-PAIR.&FirstValue
                                                          ({IEsSetParam}{@id}),
                       RNSAP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),
   secondCriticality
                                                             ({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} ::= SEQUENCE {
                RNSAP-PROTOCOL-EXTENSION.&id
                                                   ({ExtensionSetParam}),
   criticality
                    RNSAP-PROTOCOL-EXTENSION.&criticality
                                                          ({ExtensionSetParam}{@id}),
                       RNSAP-PROTOCOL-EXTENSION. & Extension
                                                          ({ExtensionSetParam}{@id})
   extensionValue
     ***************
-- Container for Private IEs
PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (1..maxPrivateIEs)) OF
   PrivateIE-Field {{IEsSetParam}}
PrivateIE-Field {RNSAP-PRIVATE-IES : IESSetParam} ::= SEQUENCE
                                            ({IEsSetParam}),
                RNSAP-PRIVATE-IES.&id
   criticality
                   RNSAP-PRIVATE-IES.&criticality
                                                   ({IEsSetParam}{@id}),
   value
                                           ({IEsSetParam}{@id})
                RNSAP-PRIVATE-IES.&Value
```

9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

The following encoding rules apply in addition to what has been specified in X.691 [20]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [20], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term "leading bit" is to be interpreted as equal to the term "first bit" defined in [18].

9.5 Timers

T Preempt

 Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

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.

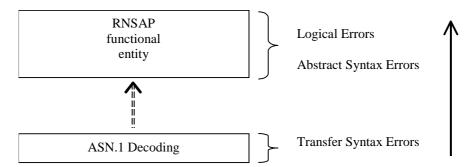


Figure 34: Protocol Errors in RNSAP

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_{Preempt} timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the DRNS shall reject the procedure that triggered the pre-emption process and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

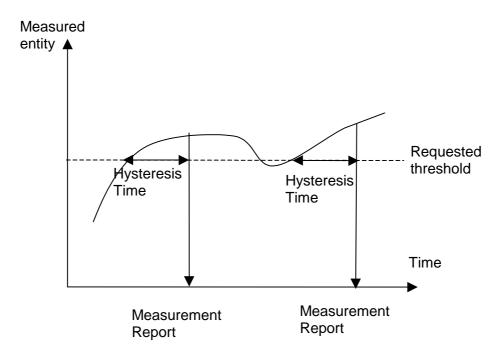


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

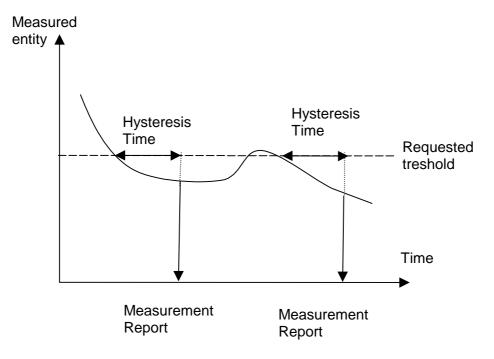


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

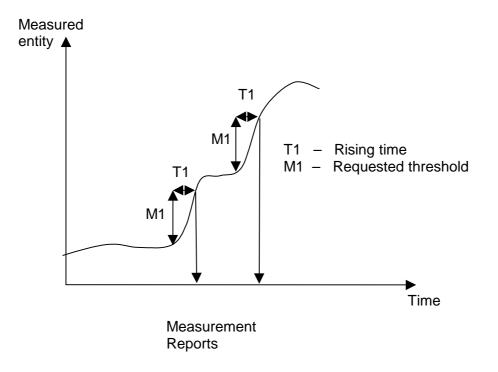


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

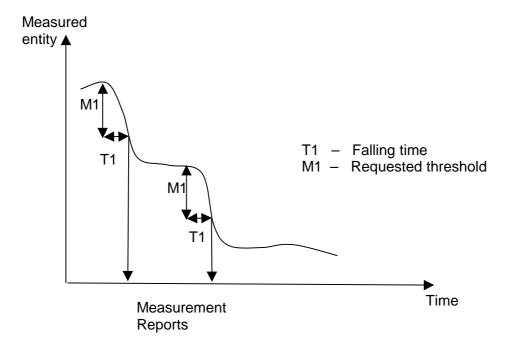


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

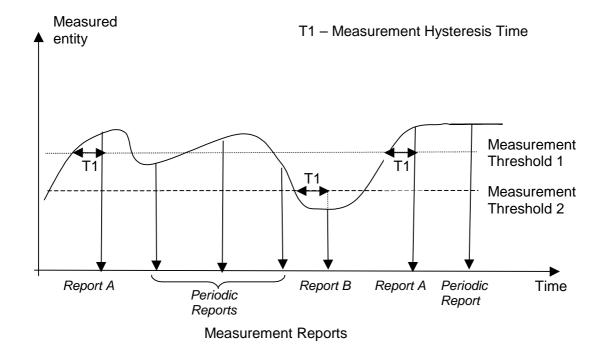
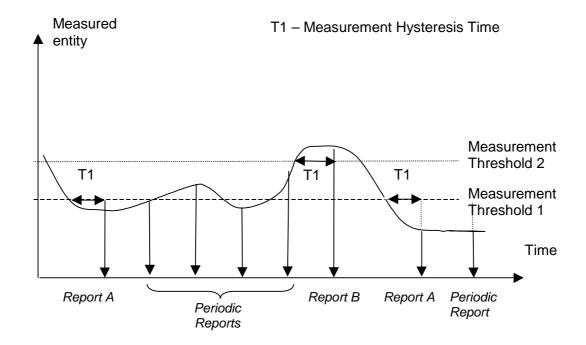


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



Measurement Reports

Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and	Description		Criticality
			Referenc			
			е			
Message Type	M				YES	reject
Transaction ID	M				-	
Α	M				YES	reject
В	M				YES	reject
>E		1 <maxe></maxe>			EACH	ignore
>>F		1 <maxf></maxf>			-	
>>>G		03,			EACH	ignore
>>H		1 <maxh></maxh>			EACH	ignore
>>>G		03,			EACH	ignore and notify
>>G	M				YES	reject
>>J		1 <maxj></maxj>			-	
>>>G		03,			EACH	reject
С	M				YES	reject
>K		1 <maxk></maxk>			EACH	ignore and notify
>>L		1 <maxl></maxl>			-	
>>>M	0				-	
D	M				YES	reject

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

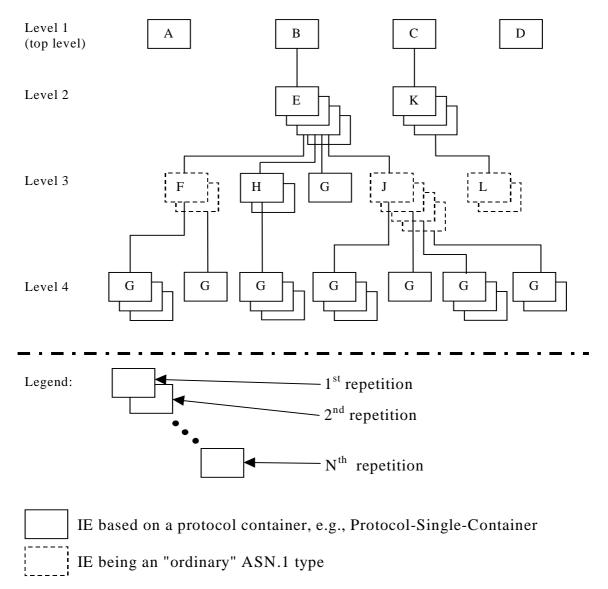
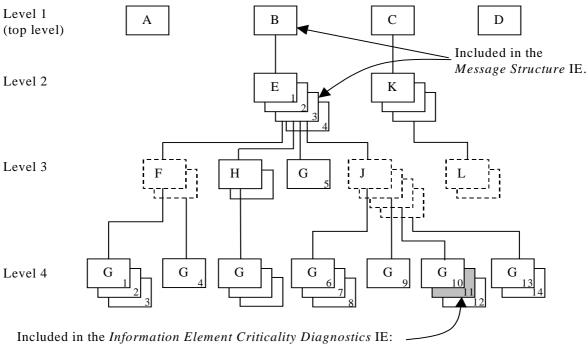


Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1



- a) IE ID IE
- b) Repetition Number IE

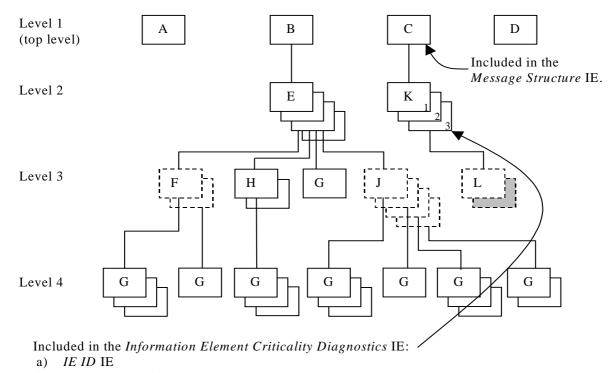
Figure C.2: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition	11	Repetition number on the reported level, i.e. level 4.
Number		(Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> 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 rep	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



b) Repetition Number IE

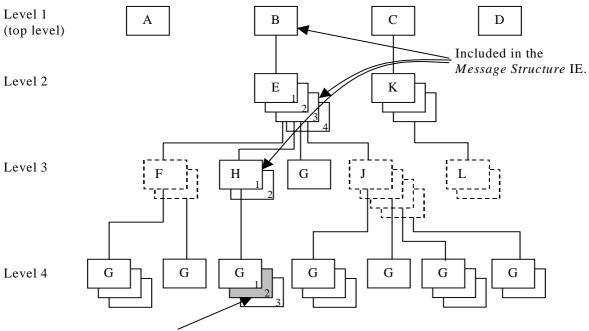
Figure C.3: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore	Criticality for IE on the reported level, i.e. level 2.
	and	
	notify	
IE ID	id-K	IE ID from the reported level, i.e. level 2.
Repetition	3	Repetition number on the reported level, i.e. level 2.
Number		
Type of Error	not	
	underst	
	ood	
Message Structur	re, first rep	etition
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

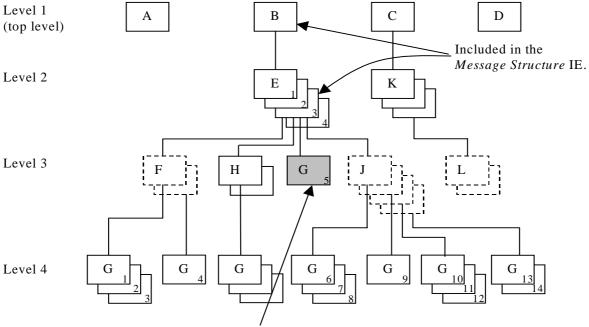
Figure C.4: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore	Criticality for IE on the reported level, i.e. level 4.
	and notify	
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition	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	etition
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.
>Repetition	1	Repetition number from the lowest level above the reported level, i.e. level 3.
Number		

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

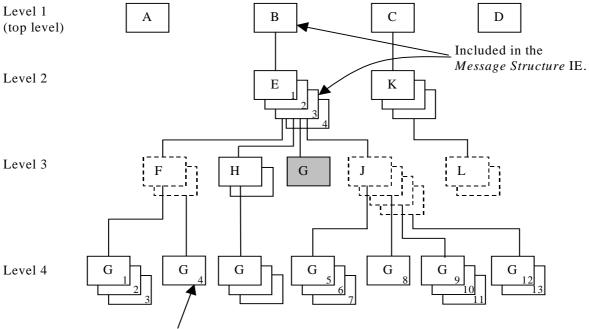
Figure C.5: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition Number	5	Repetition number 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 this is the fifth occurrence of IE G within the IE E (level 2).
Type of Error	not underst ood	
Message Structur	e, first rep	etition
>IE ID	id-B	IE ID from level 1.
Message Structur	e, second	repetition
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

Figure C.6: Example of a received RNSAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition	4	Repetition number up to the missing IE on the reported level, i.e. level 3.
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE there
		have been four occurrences of IE G within the IE E (level 2) up to the missing
		occurrence.
Type of Error	missing	
Message Structur	e, first repe	etition
>IE ID	id-B	IE ID from level 1.
Message Structur	e, second	repetition
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.
Number		

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
    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}
    }
B ::= SEQUENCE {
                    E-List,
    iE-Extensions ProtocolExtensionContainer { {B-ExtIEs} } OPTIONAL,
B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }
E-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-E CRITICALITY ignore TYPE E PRESENCE mandatory }
E ::= SEQUENCE {
   f
                    F-List.
   h
                    H-List
                    G-List1,
                    J-List,
    \verb|ie-Extensions| & \verb|ProtocolExtensionContainer| & \verb|\{E-ExtIEs\}| & \verb|OPTIONAL|, \\
}
E-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
F-List ::= SEQUENCE (SIZE (1..maxF)) OF F
F ::= SEQUENCE {
                    G-List2 OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { {F-ExtIEs} } OPTIONAL,
           RNSAP-PROTOCOL-EXTENSION ::= {
F-ExtIEs
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 ::= {
    { ID id-H CRITICALITY ignore TYPE H PRESENCE mandatory }
H ::= SEQUENCE {
                   G-List3 OPTIONAL,
                                     ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    iE-Extensions
}
```

```
H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
\texttt{G-List3} ::= \texttt{SEQUENCE} \ (\texttt{SIZE} \ (1...3, \ \ldots)) \ \texttt{OF} \ \texttt{ProtocolIE-Single-Container} \ \big\{ \ \big\{ \texttt{G3-IEs} \big\} \ \big\}
G3-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory }
G-List1 ::= ProtocolIE-Single-Container { G1-IEs} }
G1-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
                   G-List4 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
J-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G4-IEs} }
G4-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
C ::= SEQUENCE {
                   K-List,
   iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL,
C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { K-IEs} }
K-IES RNSAP-PROTOCOL-IES ::= {
   K ::= SEQUENCE {
                  L-List,
   iE-Extensions ProtocolExtensionContainer { {K-ExtIEs} } OPTIONAL,
}
K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
                   M OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {L-ExtIEs} } OPTIONAL,
L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExampleMessage-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

Annex D (normative): DRNS Behaviour at SRNC or RNSAP Signalling Bearer Failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE Contexts related to the SRNC need to be removed in DRNC.

D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection Failure

Termination of all or some of the UE Contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

D.1.1 Termination of all UE Contexts Related to a Specific SRNC

Termination of all UE Contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By "all" UE Contexts, it means all UEs having dedicated and/or common channel resources.

D.1.2 Termination of Specific UE Context

Termination of a specific UE Context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

D.2 DRNC Actions at UE Context Termination

When termination of the UE Context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE Context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

Annex E (informative): Change History

				Change 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	RP-010167	310		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010164	309				
March 01	11	RP-010159	327,32		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
			8,336, 337				
March 01	11	RP-010160	320,32		Approved at TSG RAN #11 and placed under Change Control	1_	4.0.0
Iviaicii 0 i	' '	1010100	3,339		Approved at 150 train #11 and placed under change control	_	4.0.0
06/2001	12	RP-010378	341,34		Approved at TSG RAN#12	4.0.0	4.1.0
			3,345,				
			347,34				
			9,351,				
			353,35				
			5,357,				
06/2001	12	RP-010379	359 361,36		Approved at TSG RAN#12	4.0.0	4.1.0
00/2001	12	10379	3,365,		Approved at 150 (AN#12	4.0.0	4.1.0
			367,36				
			9,378,				
			380,38				
			2,388,				
20/2224		55.0000	390			1.00	1
06/2001	12	RP-010380	399,40		Approved at TSG RAN#12	4.0.0	4.1.0
			3,405, 407,40				
			9,411,				
			414				
06/2001	12	RP-010394	372,37		Approved at TSG RAN#12	4.0.0	4.1.0
			3,374,				
			375,37				
			6,379,				
			380,39				
			1,393, 412				
09/2001	13	RP-010583	371	2	Ambiguity in CM handling	4.1.0	4.2.0
09/2001	13	RP-010583	416	1	Corrections to the DSCH Code Mapping IE	4.1.0	4.2.0
09/2001	13	RP-010583	418	i -	Transport bearer replacement clarification	4.1.0	4.2.0
09/2001	13				Correction to the Error handling of the ERROR INDICATION	4.1.0	4.2.0
		RP-010583	425	1	message		
09/2001	13	RP-010583	432	2	Cell Reserved for operator use	4.1.0	4.2.0
09/2001	13	RP-010583	437	1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001 09/2001	13	RP-010583	440	1	TFCS Correction for TDD	4.1.0	4.2.0
09/2001	13 13	RP-010583 RP-010583	442 444	1	Correction of a wrong implementation of CR 414 Error handling of the Erroneously Present Conditional les	4.1.0	4.2.0
09/2001	13	RP-010583	446	1	Correction to Downlink Signaling Transfer	4.1.0	4.2.0
09/2001	13	RP-010584	450	<u> </u>	Bitstrings ordering	4.1.0	4.2.0
09/2001	13	RP-010584	460		Mapping of TFCS to TFCI	4.1.0	4.2.0
09/2001	13	RP-010584	463		TDD Channelisation code range definition	4.1.0	4.2.0
09/2001	13	RP-010584	475	2	Clarification of coordinated DCHs	4.1.0	4.2.0
09/2001	13	RP-010584	466	1	Clarification on the Time Slot LCR	4.1.0	4.2.0
09/2001	13	RP-010584	468	1	Rnsap criticality	4.1.0	4.2.0
09/2001	13	RP-010584	470	1	Clarification of chapter 10	4.1.0	4.2.0
09/2001	13	RP-010584	472	1	Clarification of use of Diversity Control Indicator	4.1.0	4.2.0
09/2001	13	DD 040500	44.5		Clarification on the reference of the "Neighbouring TDD Cell	4.1.0	4.2.0
09/2001	13	RP-010596	415	1	Information LCR" Allowed Combinations of Dedicated Measurement Type and the	4.1.0	4.2.0
U3/2001	13	RP-010596	420	2	Reporting Characteristics Type	4.1.0	4.2.0
09/2001	13	RP-010596	423	-	Support of 8PSK modulation for LCR TDD	4.1.0	4.2.0
09/2001	13	RP-010596	430		Allowed combination of the measurement and event types	4.1.0	4.2.0
09/2001	13	RP-010596	435	1	Adding protocol container in CHOICE type IE	4.1.0	4.2.0
09/2001	13	RP-010596	438	1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001	13	RP-010596	455	1	Correct ion to position reporting	4.1.0	4.2.0
09/2001	13	DD 645===	46.		CR to 25.423 v4.1.0: RX timing deviation as dedicated	4.1.0	4.2.0
40/0004	4.4	RP-010596	461	1	measurement for 1.28Mcps TDD	400	400
12/2001	14	RP-010896	478	2	CR on Priority range	4.2.0	4.3.0
12/2001	14 14	RP-010855	480	1	Bitstrings ordering Added UTRAN modes in the Semantics Description in IEs in	4.2.0	4.3.0
12/2001	14	RP-010855	482		RNSAP messages	4.2.0	4.3.0
12/2001	14	010000	702		Alignment to RAN4 spec for Transmitted Code Power	4.2.0	4.3.0
,,	' '	RP-010855	484		Measurement	10	
12/2001	14	RP-010855	491		Transmit Diversity for TDD	4.2.0	4.3.0
12/2001	14	RP-010855	497		Clarification for the definition of the ASN.1 constants	4.2.0	4.3.0

12/2001	14	RP-010855	504	1	Terminology Corrections	4.2.0	4.3.0
12/2001	14	RP-010855	509	•	Procedure Code Criticality in Error Indication	4.2.0	4.3.0
12/2001	14	RP-010855	512		Clarification for the Power Adjustment Type IE in the DL POWER CONTROL REQUEST message	4.2.0	4.3.0
12/2001	14	RP-010855	514	1	Forward Compatibility for DL Power Balancing	4.2.0	4.3.0
12/2001	14	RP-010856	516		Reconfiguration clarification	4.2.0	4.3.0
12/2001	14	RP-010856	518	2	DRNC behaviour at SRNC or RNSAP Signalling Bearer failure	4.2.0	4.3.0
12/2001	14	RP-010856	520	2	Addition of amendment to clarify the PER encoding of bitstrings	4.2.0	4.3.0
12/2001	14	RP-010856	525		Clarification on Primary CPICH Ec/No IE	4.2.0	4.3.0
12/2001	14	RP-010856	527	2	Transport Bearer replacement clarification for the DSCH case	4.2.0	4.3.0
12/2001	14	RP-010856	529		Clarification of the Transaction ID	4.2.0	4.3.0
12/2001	14	RP-010856	532 534		Clarification of S Field Length usage	4.2.0	4.3.0
12/2001	14 14	RP-010856	540		Correction the Clause 10 Error Handling	4.2.0	4.3.0
12/2001 12/2001	14	RP-010856 RP-010873	486	1	Correction to Primary CPICH handling in RL Setup procedure Correction of drift rate resolution	4.2.0	4.3.0
12/2001	14	RP-010873	487		Cell Parameter ID IE definition for 1.28Mcps TDD	4.2.0	4.3.0
12/2001	14	1010073	407		Introduction of Band Indicator in GSM Neighbouring Cell	4.2.0	4.3.0
12/2001	' -	RP-010873	488		Information	7.2.0	4.5.0
12/2001	14	RP-010873	489		UL SIR Target in RL Setup Request TDD	4.2.0	4.3.0
12/2001	14	RP-010873	502	2	Handling of the DPC Mode IE	4.2.0	4.3.0
12/2001	14	RP-010873	505	1	Rel-4 specific terminology corrections	4.2.0	4.3.0
12/2001	14	RP-010873	521	1	Correction to the RNSAP Congestion Indication	4.2.0	4.3.0
12/2001	14	RP-010873	530	2	SFN-SFN quality indication	4.2.0	4.3.0
12/2001	14				Correction to SFN-SFN Observed Time Difference Measurement	4.2.0	4.3.0
		RP-010911	485	1	report mapping		
03/2002	15	RP-020169	542	3	RNSAP signalling support for flexible split	4.3.0	4.4.0
03/2002	15	RP-020169	549	1	Setting of Initial power in a new CCTrCH in TDD	4.3.0	4.4.0
03/2002	15	RP-020169	560	_	Clarification to measurement unit at Higher Layer Filtering.	4.3.0	4.4.0
03/2002	15	RP-020169	574	2	New UE identifier for MAC-c/sh multiplexing for DSCH	4.3.0	4.4.0
03/2002	15	RP-020169	581	1	Correction to physical channels which SCTD can be applied (lur)	4.3.0	4.4.0
03/2002	15	RP-020181	545	1	Corrections to the Information Exchange Initiation procedure	4.3.0	4.4.0
03/2002	15	RP-020181	546	1	Correction to UE position measurements quality and threshold	4.3.0	4.4.0
03/2002	15	RP-020181	547	1	Correction to UE position measurements change and deviation	4.3.0	4.4.0
03/2002	15	RP-020181	552		Re-ordering of cause values	4.3.0	4.4.0
03/2002	15	RP-020181	561		Clarification to the Allowed Rate Information in RL Setup/Addition/Reconfiguration response and RL Reconfiguration Ready messages.	4.3.0	4.4.0
03/2002	15	RP-020181	562	1	Modification of the T_utran-gps length	4.3.0	4.4.0
03/2002	15	RP-020181	567		Amendment of the COMMON MEASUREMENT INITIATION	4.3.0	4.4.0
03/2002	15	RP-020181	576	2	Load Value Extension	4.3.0	4.4.0
03/2002	15	RP-020181	588		The correction on duplicated allocatioin of protocollE-ID	4.3.0	4.4.0
03/2002	15	RP-020181	589		Enhanced DSCH and syntax error ASN.1 correction	4.3.0	4.4.0
03/2002	15	RP-020181	596	1	Introduction of ellipses for IPDL parameters	4.3.0	4.4.0
03/2002	15	RP-020231	586	2	Removing of channel coding option "no coding" for FDD	4.3.0	4.4.0
03/2002	15	RP-020188	433	4	Power Balancing Activation with Radio Link Setup and Radio Link Addition procedures in RNSAP	4.4.0	5.0.0
03/2002	15	RP-020188	434	3	Power Balancing Restart with Radio Link Reconfiguration procedure in RNSAP	4.4.0	5.0.0
03/2002	15	RP-020188	473	2	Traffic class signalling over lur	4.4.0	5.0.0
03/2002	15	RP-020188	506	2	Alignment to RAN4 specifications for CPICH Ec/No	4.4.0	5.0.0
03/2002	15	RP-020194	543	2	RNSAP Signalling support for flexible hard split	4.4.0	5.0.0
03/2002	15	02010¬		-	Add IPDL TDD parameters for LCR in RNSAP information element		5.0.0
		RP-020193	544	2	functional definition and contents		
03/2002	15	RP-020192	533	1	Introduction of cell capability container over lur	4.4.0	5.0.0
03/2002	15	RP-020189	555	2	Introduction of IP Transport Option in UTRAN	4.4.0	5.0.0
03/2002	15	RP-020197	556	1	lur Common Transport Channel Efficiency Optimisation	4.4.0	5.0.0
03/2002	15 15	RP-020188 RP-020199	558 563	2	RNSAP Reset procedure Separation of Resource Reservation and Radio Link Activation	4.4.0 4.4.0	5.0.0 5.0.0
03/2002	15	RP-020199 RP-020196	564		Introduction of RL Timing Adjustment support	4.4.0	5.0.0
03/2002	15	175-020190	304		Introduction of RL Timing Adjustment support Introduction of the Neighbouring TDD Cell Measurement	4.4.0	5.0.0
30,2002		RP-020193	568	1	Information LCR	1.7.0	0.0.0
03/2002	15	RP-020188	569	1	Uplink SIR Target in RL Setup Response TDD	4.4.0	5.0.0
03/2002	15	RP-020190	570	3	HSDPA RL-Level Signalling	4.4.0	5.0.0
03/2002	15		1		Introduction of Angle of Arrival enhanced UE positioning for	4.4.0	5.0.0
		RP-020193	571	1	1.28Mcps TDD in RNSAP		

03/2002	15	RP-020188	572	2	Traffic class signalling for USCH	4.4.0	5.0.0
03/2002	15	111 020100	012	_	New Measurement Type in Common Measurements and	4.4.0	5.0.0
		RP-020188	577	4	Information Exchange		
03/2002	15	RP-020194	582	3	RNSAP changes for TFCI power control in DSCH hard split mode	4.4.0	5.0.0
03/2002	15	RP-020188	587	1	Introduction of the cell relation parameters	4.4.0	5.0.0
06/2002	16	RP-020426	554	4	Introduction of Qth signalling in UTRAN	5.0.0	5.1.0
06/2002	16	RP-020406	599		Criticality Information Decoding Failure Handling	5.0.0	5.1.0
06/2002	16	RP-020406	602	1	Alignment of tabular and ASN.1 coding for DL power	5.0.0	5.1.0
06/2002	16	RP-020406	605	1	Correction to RL Restore Indication	5.0.0	5.1.0
06/2002	16	RP-020406	611		New UE identifier for Shared Channel handling for TDD DSCH/USCH	5.0.0	5.1.0
06/2002	16	RP-020406	614	1	Clarification of Cell individual offset	5.0.0	5.1.0
06/2002	16	111 020400	014	+'	Clarification on the Neighboring TDD Cell Measurement	5.0.0	5.1.0
00/2002	10	RP-020419	618		Information	0.0.0	0.1.0
06/2002	16	RP-020422	619		HS_DSCH Support Indicator in FDD Cell Capability Container	5.0.0	5.1.0
06/2002	16	RP-020432	620		Removal of syntax errors from ASN.1	5.0.0	5.1.0
06/2002	16	RP-020422	621		Interaction between HSDPA and IP transport in UTRAN	5.0.0	5.1.0
06/2002	16	RP-020428	623		RNSAP changes for TFCI power control in DSCH hard split mode	5.0.0	5.1.0
06/2002	16				Correction to the use of the CFN IE / SFN IE in the Measurement	5.0.0	5.1.0
		RP-020406	626	1	Initiation procedures		
06/2002	16	RP-020406	632		TFCI 0 definition for TDD	5.0.0	5.1.0
06/2002	16	RP-020406	635	1	CELL_DCH to CELL_FACH TDD correction	5.0.0	5.1.0
06/2002	16	RP-020407	641	1	DSCH Information Correction	5.0.0	5.1.0
06/2002	16			1	Definition of quality figures for SFN-SFN and Tutran-gps	5.0.0	5.1.0
	<u> </u>	RP-020419	648	1	measurement value information		
06/2002	16	RP-020407	656	1	Clarification for the usage of the cause value	5.0.0	5.1.0
06/2002	16	RP-020422	662	2	HS-DSCH Initial credits	5.0.0	5.1.0
06/2002	16	RP-020419	663	1	Clarification to the RNSAP RL Congestion procedure	5.0.0	5.1.0
06/2002	16	RP-020432	664	1	DSCH Support Indicator in Cell Capability Container	5.0.0	5.1.0
06/2002	16	RP-020407	673		RNSAP Tabular alignment to ASN1 and other corrections	5.0.0	5.1.0
06/2002	16			_	Support of lur-g procedures (implemented after PCG	5.1.0	5.2.0
00/0000	47	RP-020447	669	2	endorsement)	500	500
09/2002	17	RP-020607	675		Correction of Criticality of RL set information in Dedicated Measurement initiation	5.2.0	5.3.0
09/2002	17	RP-020614	677	1	Rx Timing Deviation (TDD) corrections	5.2.0	5.3.0
09/2002	17	RP-020616	679	1	Clarification of the Common Measurement Reporting procedure	5.2.0	5.3.0
09/2002	17	RP-020607	681		Clarification to DCH Rate Control for modified DCHs	5.2.0	5.3.0
09/2002	17	RP-020648	682	3	CQI and ACK/NACK Repetition factor and Power Offset and k-value	5.2.0	5.3.0
09/2002	17	RP-020622	683		Change of Maximum Number of HS-SCCH Codes	5.2.0	5.3.0
09/2002	17	RP-020652	684	2	Required enhancements due to GERAN specific impacts on the lucs interface	5.2.0	5.3.0
09/2002	17	RP-020618	685		Clarification for the initial power of the power balancing (Pinit)	5.2.0	5.3.0
09/2002	17	RP-020651	686	2	Partial dedicated measurement reporting	5.2.0	5.3.0
09/2002	17	RP-020646	687	1	DSCH Initial Credits	5.2.0	5.3.0
09/2002	17	RP-020619	688		Removal of BLER for HS-DSCH	5.2.0	5.3.0
09/2002	17	RP-020617	689	1	Correction for inconsistency in length of TFCI field 2	5.2.0	5.3.0
09/2002	17	RP-020612	691		WG4 Reference Corrections	5.2.0	5.3.0
09/2002	17	RP-020607	694	2	RNSAP Procedures alignment to NBAP and other corrections	5.2.0	5.3.0
09/2002	17	RP-020607	696	2	Handling of Common measurement of neighbor cell information elements	5.2.0	5.3.0
09/2002	17	RP-020589	700	1	Replacing all occurences of P _{SIR} (k) by dP _{curr} in 25.423	5.2.0	5.3.0
09/2002	17	RP-020623	701	1	RL Parameter Update Procedure	5.2.0	5.3.0
09/2002	17	RP-020625	702	1	Introduction of Shared Network Area information support	5.2.0	5.3.0
09/2002	17	RP-020603	705	2	Correction of the Error Indication	5.2.0	5.3.0

09/2002	17	RP-020613	707	2	Uplink Synchronisation in 1.28Mcps TDD	5.2.0	5.3.0
09/2002	17	RP-020628	714		Traffic Class for HS-DSCH	5.2.0	5.3.0
09/2002	17	RP-020607	716	1	Clarification of the DCH rate coding	5.2.0	5.3.0
09/2002	17	RP-020649	717	1	HS-SCCH Power offset	5.2.0	5.3.0
09/2002	17	RP-020603	720	1	Correction to Compressed Mode in RL Addition Failure	5.2.0	5.3.0
09/2002	17	RP-020615	722		Quality les for UE positioning measurements	5.2.0	5.3.0

12/2002	18	RP-020758	724		Add UL SIR_target for Unsynchronized RL Reconfiguration in 1.28Mcps TDD	5.3.0	5.4.0
12/2002	18	RP-020757	726		Correction to RX Timing Deviation LCR value range	5.3.0	5.4.0
12/2002	18	RP-020759	728	2	Slot Format for 1.28Mcps TDD	5.3.0	5.4.0
12/2002	18	RP-020762	729	1	MAC-hs Reset Indicator	5.3.0	5.4.0
12/2002	18	RP-020773	730	1	Measurement power offset signalling for HSDPA	5.3.0	5.4.0
12/2002	18	RP-020768	731		Power offset values for HS-DPCCH	5.3.0	5.4.0
12/2002	18	RP-020762	732		Correction on the Cell Capacity Class	5.3.0	5.4.0
12/2002	18	RP-020762	733		Rel-5 ASN.1 Error correction	5.3.0	5.4.0
12/2002	18	RP-020753	738	2	Final Corrections from RNSAP Procedure Review	5.3.0	5.4.0
12/2002	18	RP-020767	742	1	Addition of the second TDD Channelisation Code of HS-SCCH for the 1.28Mcps TDD option.	5.3.0	5.4.0
12/2002	18	RP-020765	744	1	Clarfication of the usage of HS-DSCH-RNTI	5.3.0	5.4.0
12/2002	18	RP-020766	753		Clarification for the inclusion of the DL Power Balancing Updated Indicator IE	5.3.0	5.4.0
12/2002	18	RP-020744	756		Correction for the DL DPDCH transmission	5.3.0	5.4.0
12/2002	18	RP-020855	757	3	MAC-hs Window Size	5.3.0	5.4.0
12/2002	18	RP-020743	763	1	DSCH-RNTI in RADIO LINK SETUP FAILURE	5.3.0	5.4.0
03/2003	19	RP-030068	767		Clarification to DL Power definition for TDD	5.4.0	5.5.0
03/2003	19	RP-030077	768	2	Correction to DL Tx Power for TDD	5.4.0	5.5.0
03/2003	19	RP-030072	770	1	TPC Step Size for TDD	5.4.0	5.5.0
03/2003	19	RP-030069	772		Clarification to 2nd Interleaving Mode for TDD	5.4.0	5.5.0
03/2003	19	RP-030078	773	1	HS-PDSCH RNSAP Corrections for TDD	5.4.0	5.5.0
03/2003	19	RP-030073	775	1	Clarification of HS-SCCH power offset usage in case of multiple HS-SCCHs	5.4.0	5.5.0
03/2003	19	RP-030062	778		Correction of Guaranteed DL Rate	5.4.0	5.5.0
03/2003	19	RP-030062	780	1	Correction of the TDD UE capabilities necessary to pass from SRNC to CRNC	5.4.0	5.5.0
03/2003	19	RP-030080	781	1	Measurement for HS-SICH Outer Loop Power Control	5.4.0	5.5.0
03/2003	19	RP-030082	784	1	Corrections to Channelisation Code TFCI Mapping for TDD	5.4.0	5.5.0
03/2003	19	RP-030070	786		Correction for the Information Exchange Initiation procedure	5.4.0	5.5.0
03/2003	19	RP-030074	787	1	T1 signalling for HSDPA	5.4.0	5.5.0
03/2003	19	RP-030183	790	5	Support of Cell Individual Offset in RNSAP	5.4.0	5.5.0
03/2003	19	RP-030071	792		Midamble Configuration for Midamble Shift LCR	5.4.0	5.5.0
03/2003	19	RP-030067	796		Alignment of "Uncertainty Ellipse" with RRC	5.4.0	5.5.0
03/2003	19	RP-030058	798	2	Uplink Timing Advance Control Parameters in LCR TDD	5.4.0	5.5.0
03/2003	19	RP-030119	800	1	Signalling of Midamble Shift and Burst type for HS-PDSCH in TDD	5.4.0	5.5.0
03/2003	19	RP-030066	803		Corrections to DCH Combining in RL SETUP and RL ADDITION	5.4.0	5.5.0
03/2003	19	RP-030058	809		Correction on CGA Additional Shapes	5.4.0	5.5.0
03/2003	19	RP-030076	810	2	Guaranteed Bit Rate for HSDPA	5.4.0	5.5.0
06/2003	20	RP-030332	815		Alignment of TDD HSDPA parameters to RAN2 and RAN 1.	5.5.0	5.6.0
06/2003	20	RP-030333	816		HSDPA General Corrections	5.5.0	5.6.0
06/2003	20	RP-030358	820	3	Group reset	5.5.0	5.6.0
06/2003	20	RP-030334	821		TDD Channelisation Code LCR correction for HSDPA	5.5.0	5.6.0
06/2003	20	RP-030319	822		Correction of the figure of the Information Exchange Failure procedure	5.5.0	5.6.0
06/2003	20	RP-030324	824	1	Alignment of the Requested Data Value Information IE description	5.5.0	5.6.0
06/2003	20	RP-030325	826		GPS trigger condition	5.5.0	5.6.0
06/2003	20	RP-030319	827		Alignment of tables in Information Exchange Initiation procedure description	5.5.0	5.6.0
06/2003	20	RP-030329	832	2	HS-SCCH Change Indicator	5.5.0	5.6.0
06/2003	20	RP-030335	835	<u> </u>	Correction to HARQ Memory Partitioning	5.5.0	5.6.0
100/000	20	RP-030337	836	1	Correction for the value range of "CQI Feedback cycle, k"	5.5.0	5.6.0
06/2003			1	10			5.6.0
06/2003	20	RP-030279	837	2	Clarification for the handling of the HS-DSCH	5.5.0	
06/2003 06/2003	20	RP-030279 RP-030328	838	2	Resource handling of HS-DSCH Guaranteed Bit Rate	5.5.0	5.6.0
06/2003 06/2003 06/2003	20 20	RP-030279 RP-030328 RP-030326	838 842	2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors	5.5.0 5.5.0	5.6.0 5.6.0
06/2003 06/2003 06/2003 09/2003	20 20 21	RP-030279 RP-030328 RP-030326 RP-030451	838 842 843	2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA	5.5.0 5.5.0 5.6.0	5.6.0 5.6.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003	20 20 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452	838 842 843 844	2 2 1	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support	5.5.0 5.5.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003	20 20 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030449	838 842 843 844 847	2 1 2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003	20 20 21 21 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030449 RP-030536	838 842 843 844 847 848	2 2 1	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify MAC-hs Reordering Buffer Size	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003 09/2003	20 20 21 21 21 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030449 RP-030536 RP-030443	838 842 843 844 847 848 852	2 1 2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify MAC-hs Reordering Buffer Size Corrections to Tx Diversity	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003	20 20 21 21 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030449 RP-030536	838 842 843 844 847 848	2 1 2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify MAC-hs Reordering Buffer Size Corrections to Tx Diversity Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003	20 20 21 21 21 21 21 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030536 RP-030443 RP-030444 RP-030444	838 842 843 844 847 848 852 853 856	2 1 2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify MAC-hs Reordering Buffer Size Corrections to Tx Diversity Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003	20 20 21 21 21 21 21 21 21 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030449 RP-030536 RP-030443 RP-030444 RP-030444	838 842 843 844 847 848 852 853 856	2 1 2	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify MAC-hs Reordering Buffer Size Corrections to Tx Diversity Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0
06/2003 06/2003 06/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003 09/2003	20 20 21 21 21 21 21 21 21 21 21 21	RP-030279 RP-030328 RP-030326 RP-030451 RP-030452 RP-030536 RP-030443 RP-030444 RP-030444 RP-030444	838 842 843 844 847 848 852 853 856 857	2 1 2 2 1 1	Resource handling of HS-DSCH Guaranteed Bit Rate Correction of Failure message used for logical errors Discard timer signalling for HSDPA Phase Reference Signalling Support HS-DSCH Priority Queue to Modify MAC-hs Reordering Buffer Size Corrections to Tx Diversity Correction of the Measurement Increase/Decrease Threshold IE "On Modification" and "Periodic" reporting alignment for Information Exchange procedures Alignment of title and sub-clause text of chapter 10.3.4.2 Corrections on Uplink Signalling Transfer	5.5.0 5.5.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0 5.6.0	5.6.0 5.6.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0 5.7.0
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