



Scottsdale, US 14 - 18 February 2005

CR-Form-v7	
<b>CHANGE REQUEST</b>	
⌘ <b>25.133 CR 707</b> ⌘ rev <b>1</b> ⌘	Current version: <b>6.8.0</b> ⌘

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

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

<b>Title:</b>	⌘ Introduction of 'DL Transmission Branch Load Measurement'		
<b>Source:</b>	⌘ 3GPP TSG RAN WG4 (Radio)		
<b>Work item code:</b>	⌘ TEI6	<b>Date:</b>	⌘ 28/02/2005
<b>Category:</b>	⌘ <b>B</b>	<b>Release:</b>	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ With the current specifications, it is not possible for the Node B to report to the RNC some internal power limitations (e.g. power amplifier) with respect to each transmission branch. In case of Tx diversity this can lead to signal degradation (e.g. EVM increase due to signal compression) and potentially call drops (e.g. suboptimal call and congestion control algorithms). This effect ONLY occurs if TX diversity is used. Measurement accuracy and range mapping for this new UTRAN measurement 'DL Transmission Branch Load' need to be specified in TS25.133.
<b>Summary of change:</b>	⌘ Measurement accuracy and range mapping for the new UTRAN measurement 'DL Transmission Branch Load' are specified.
<b>Consequences if not approved:</b>	⌘ Internal transmission Node B power limitations in case of TX diversity cannot be reported and may lead to QoS degradation and suboptimal call congestion and call control operations.

<b>Clauses affected:</b>	⌘ 9.2; 9.2.x (new)						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="font-size: 24px;">X</td> <td></td> </tr> </table>	Y	N	X		Other core specifications	⌘ TS 25.215 (RAN1) CR147 TS 25.302 (RAN2) CR151 TS 25.433 (RAN3) CR1080
Y	N						
X							
	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;">X</td> </tr> <tr> <td style="font-size: 24px;">X</td> <td></td> </tr> </table>		X	X		Test specifications	
	X						
X							
	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;">X</td> </tr> <tr> <td style="font-size: 24px;">X</td> <td></td> </tr> </table>		X	X		O&M Specifications	
	X						
X							
<b>Other comments:</b>	⌘ For the section 9.2.x it is suggested to take 9.2.17						

### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>.

Below is a brief summary:

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

The measurement period shall be 100 ms.

### 9.2.16.1 Accuracy requirement

**Table 9.63**

Parameter	Unit	Accuracy [% units]	Conditions
			Range
P <sub>tot</sub>	%	± 5	For 5% ≤ Transmitted carrier power of non-HSDPA codes ≤ 95%

### 9.2.16.2 Measurement report mapping for transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission

The reporting range for *Transmitted carrier power of non-HSDPA codes* is from 0 ... 100 %.

In table 9.64 the mapping of measured quantity is defined. The range in the signalling may be larger than the guaranteed accuracy range.

**Table 9.64**

Reported value	Measured quantity value	Unit
NON_HSDPA_UTRAN_TX_POWER_000	Transmitted carrier power of non-HSDPA codes = 0	%
NON_HSDPA_UTRAN_TX_POWER_001	0 < Transmitted carrier power of non-HSDPA codes ≤ 1	%
NON_HSDPA_UTRAN_TX_POWER_002	1 < Transmitted carrier power of non-HSDPA codes ≤ 2	%
NON_HSDPA_UTRAN_TX_POWER_003	2 < Transmitted carrier power of non-HSDPA codes ≤ 3	%
...	...	...
NON_HSDPA_UTRAN_TX_POWER_098	97 < Transmitted carrier power of non-HSDPA codes ≤ 98	%
NON_HSDPA_UTRAN_TX_POWER_099	98 < Transmitted carrier power of non-HSDPA codes ≤ 99	%
NON_HSDPA_UTRAN_TX_POWER_100	99 < Transmitted carrier power of non-HSDPA codes ≤ 100	%

## 9.2.X DL Transmission Branch Load

This measurement is applicable in case of TX diversity.

The measurement period shall be 100 ms.

### 9.2.X.1 Accuracy requirement

**Table 9.xx**

Parameter	Unit	Accuracy [% units]	Conditions
			Range
P <sub>branchtot</sub>	%	± 5	For 5% ≤ DL Transmission Branch Load ≤ 95%

## 9.2.X.2 DL Transmission Branch Load measurement report mapping

The reporting range for *DL Transmission Branch Load measurement* is from 0 ... 100 %.

In table 9.xy the mapping of measured quantity is defined. The range in the signalling may be larger than the guaranteed accuracy range.

**Table 9.xy**

<b>Reported value</b>	<b>Measured quantity value</b>	<b>Unit</b>
<a href="#">branch_load_000</a>	<a href="#">DL Transmission Branch Load = 0</a>	<a href="#">%</a>
<a href="#">branch_load_001</a>	<a href="#">0 &lt; DL Transmission Branch Load ≤ 1</a>	<a href="#">%</a>
<a href="#">branch_load_002</a>	<a href="#">1 &lt; DL Transmission Branch Load ≤ 2</a>	<a href="#">%</a>
<a href="#">branch_load_003</a>	<a href="#">2 &lt; DL Transmission Branch Load ≤ 3</a>	<a href="#">%</a>
...	...	...
<a href="#">branch_load_098</a>	<a href="#">97 &lt; DL Transmission Branch Load ≤ 98</a>	<a href="#">%</a>
<a href="#">branch_load_099</a>	<a href="#">98 &lt; DL Transmission Branch Load ≤ 99</a>	<a href="#">%</a>
<a href="#">branch_load_100</a>	<a href="#">99 &lt; DL Transmission Branch Load ≤ 100</a>	<a href="#">%</a>
<a href="#">branch_load_101</a>	<a href="#">DL Transmission Branch Load &gt; 100</a>	<a href="#">%</a>

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## Annex A (normative): Test Cases

## CHANGE REQUEST

# 25.302 CR 151 # rev - # Current version: 6.2.0 #

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

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

<b>Title:</b>	# Introduction of 'DL Transmission Branch Load' measurement		
<b>Source:</b>	# RAN WG2		
<b>Work item code:</b>	# TEI6	<b>Date:</b>	# 14/02/2005
<b>Category:</b>	# <b>B</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	# With the current specifications, it is not possible for the Node B to report to the RNC some internal power limitations (e.g. power amplifier) with respect to each transmission branch. In case of Tx diversity this can lead to signal degradation (e.g. EVM increase due to signal compression) and potentially call drops (e.g. suboptimal call and congestion control algorithms). This effect ONLY occurs if TX diversity is used.
<b>Summary of change:</b>	# Introduction of a new UTRAN measurement reporting the maximum of the branch loads calculated for each TX branch.
<b>Consequences if not approved:</b>	# Internal transmission Node B power limitations in case of TX diversity cannot be reported and may lead to QoS degradation and suboptimal call congestion and call control operations.

<b>Clauses affected:</b>	# 9.3						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;">X</td> <td style="width: 20px;"></td> </tr> </table> Other core specifications	Y	N	X		#	TS 25.215 (RAN1), TS 25.433 (RAN3), TS 25.133 (RAN4)
Y	N						
X							
	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;"></td> <td style="width: 20px;">X</td> </tr> <tr> <td style="width: 20px;"></td> <td style="width: 20px;">X</td> </tr> </table> Test specifications O&M Specifications		X		X		
	X						
	X						
<b>Other comments:</b>	#						

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



TEXT OMITTED

## 9.3 UTRAN Measurements

The impact of the introduction of E-DCH on the UTRAN measurements is FFS.

### 9.3.1 Received total wide band power

Measurement	Received total wide band power
Source	L1 (Node B)
Destination	RRC(RNC)
Reporting Trigger	On-demand, Event-triggered, Periodic
Description	The received wide band power including noise generated in the receiver, within the bandwidth defined by the pulse shaping filter. For TDD mode, this is measured in specified timeslots.

### 9.3.2 Transmitted carrier power

Measurement	Transmitted carrier power
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, periodic, Event-triggered
Description	Transmitted carrier power is the ratio between the total transmitted power on one DL carrier from one UTRAN access point, compared to the maximum power possible to use on that DL carrier at this moment of time. For TDD mode, this is measured in specified timeslots.

### 9.3.3 Transmitted code power

Measurement	Transmitted code power
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, periodic, Event-triggered
Description	Transmitted Code Power is the transmitted power on one carrier, one scrambling and one channelisation code. For TDD mode, this is measured in specified timeslots.

### 9.3.4 Void

### 9.3.5 Physical channel BER

Measurement	Physical channel BER
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, Event-triggered, periodic
Description	The Physical channel BER is an estimation of the average bit error rate (BER) on the DPCCCH of a Radio Link Set. This measurement applies to FDD mode only.

### 9.3.6 Transport channel BER

Measurement	Transport channel BER
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, Event-triggered, periodic
Description	The transport channel BER is an estimation of the average bit error rate (BER) data part.

### 9.3.7 RX timing deviation

Measurement	RX timing deviation
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Description	The difference of the time of arrival of the UL transmissions in relation to the arrival time of a signal with zero propagation delay. This measurement is applicable for TDD mode.

### 9.3.8 Timeslot ISCP

Measurement	Timeslot ISCP
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	periodic or event triggered
Description	Interference on Signal Code Power, is the interference on the received signal in a specified timeslot. This measurement is applicable is applicable to TDD mode only.

### 9.3.9 RSCP

Measurement	RSCP
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	periodic or event triggered
Description	Received Signal Code Power is the received power on DPCH or PRACH, PUSCH or HS-SICH. This measurement is applicable for TDD mode only.

### 9.3.10 Round Trip Time

Measurement	Round Trip Time
Source	L1(Node B or LMU)
Destination	RRC (RNC-UE positioning)
Reporting Trigger	on demand, event triggered
Description	This is an estimate of the round trip time of signals between the Node B and the UE This measurement is applicable for FDD mode only.

### 9.3.11 Void

### 9.3.12 Acknowledged PRACH preambles

Measurement	Acknowledged PRACH preambles
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered, On demand
Description	This measurement indicates the number of positive acquisition indicators transmitted per access frame on each AICH. This measurement is applicable for FDD mode only.

### 9.3.13 Detected PCPCH access preambles

Measurement	Detected PCPCH Access preambles
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered, On demand
Description	This measurement indicates the total number of detected access preambles per access frame on the PCPCHs belonging to a CPCH set. This measurement is applicable for FDD mode only.

### 9.3.14 Acknowledged PCPCH access preambles

Measurement	Acknowledged PCPCH access preambles
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered, On demand
Description	This measurement indicates the total number of acknowledged PCPCH access preambles per access frame on the PCPCHs. where an access frame consists of fifteen access slots from access slot #0 to access slot #14. This measurement is applicable for FDD mode only.

### 9.3.15 SIR

Measurement	SIR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Description	Signal to Interference Ratio.

### 9.3.16 PRACH/PCPCH Propagation Delay

Measurement	Propagation delay
Source	L1( Node B)
Destination	RRC (RNC)
Reporting Trigger	Event triggered, periodic
Description	The one-way propagation delay as measured during either PRACH or PCPCH access. This measurement is applicable for FDD mode only.

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

Measurement	UTRAN GPS Timing of Cell Frames for UE positioning
Source	L1 (LMU)
Destination	RRC (RNC-UE positioning)
Reporting Trigger	On-demand, Event-triggered, Periodic
Description	This is the absolute time reference measurement in respect to GPS Time Of Week for the transmission of a particular frame.

### 9.3.18 SIR ERROR

Measurement	SIR ERROR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Description	Signal to Interference Ratio Error This measurement is applicable for FDD cells only.

### 9.3.19 Received SYNC\_UL Timing Deviation

Measurement	Received SYNC_UL Timing Deviation
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	Event triggered
Definition	'Received SYNC_UL Timing Deviation' is the time difference $UpPCH_{POS} = UpPTS_{R_{path}} - UpPTS_{TS}$ Where $UpPTS_{R_{path}}$ : time of the reception in the Node B of the SYNC_UL to be used in the uplink synchronization process $UpPTS_{TS}$ : time instance two symbols prior to the end of the DwPCH according to the Node B internal timing

### 9.3.20 Cell Sync Burst Timing

Measurement	Cell Sync Burst Timing
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Definition	Cell sync burst timing is the time of start (defined by the first detected path in time) of the cell sync burst of a neighbouring cell. Type 1 is used for the initial phase of Node B synchronization. Type 2 is used for the steady-state phase of Node B synchronization.

### 9.3.21 Cell Sync Burst SIR

Measurement	Cell Sync Burst SIR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Definition	Signal to Interference Ratio for the cell sync burst, defined as: $RSCP/Interference$ , where:

### 9.3.22 SFN-SFN Observed time difference

Measurement	SFN-SFN observed time difference
Source	L1 (LMU)
Destination	RRC (RNC-UE positioning)
Reporting Trigger	On-demand, Periodic, On Modification
Description	Measured time between reception of signal from a specific reference UTRA cell and from a neighbour UTRA cell.

### 9.3.23 Angle of Arrival (AOA) for 1.28 Mcps TDD

Measurement	Angle of Arrival (AOA) for 1.28Mcps TDD
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	Event-triggered, on-demand
Description	AOA defines the estimated angle of a user with respect to a reference direction. The reference direction for this measurement shall be the North, positive in a counter-clockwise direction. The AOA is determined at the UTRAN access point antenna for an UL channel corresponding to this UE.

### 9.3.24 HS-SICH reception quality

Measurement	HS-SICH reception quality
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, Event-triggered, Periodic
Description	The HS-SICH reception quality is defined via the the number of expected HS-SICH transmissions from a given UE and the number of unsuccessful HS-SICH receptions for this same UE in the Node B. For 1.28 Mcps TDD, only measurements made on HS-SICH transmissions that were transmitted using open loop power control are reported as part of this measurement.  This measurement is applicable for TDD cells only.

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

Measurement	Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, periodic, Event-triggered
Description	Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission is the ratio between the total transmitted power of all codes not used for HS-PDSCH or HS-SCCH transmission on one DL carrier from one UTRAN access point, and the maximum transmission power possible to use on that DL carrier at this moment of time.  For TDD mode, this is measured in specified timeslots.

### 9.3.26 UpPTS interference (1.28Mcps TDD)

Measurement	UpPTS interference (1.28Mcps TDD)
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, periodic, Event-triggered
Description	The level of interference in the UpPTS is the difference between the mean received power in the UpPTS and the sum of the estimated mean power levels of all detected UpPCH transmissions. In the case of antenna diversity, the linear average of the UpPTS interference levels for each antenna branch shall be calculated. The reference point for the UpPTS interference measurement shall be the Rx antenna connector.

### 9.3.27 DL Transmission Branch Load

<u>Measurement</u>	<u>DL Transmission Branch Load</u>
<u>Source</u>	<u>L1(Node B)</u>
<u>Destination</u>	<u>RRC (RNC)</u>
<u>Reporting Trigger</u>	<u>On-demand, Event-triggered, Periodic</u>
<u>Description</u>	<u>The 'DL transmission branch load' is the maximum of the transmission branch loads calculated for each branch.</u> <u>A 'transmission branch load' is the ratio between the total transmitted power [W] on the considered branch and the 'maximum DL branch capability' on this branch.</u> <u>The 'maximum DL branch capability' defines the maximum transmission power possible to use on that branch.</u> <u>The reference point for the transmission branch load measurement shall be the TX antenna connector.</u>

**TEXT OMITTED**

## CHANGE REQUEST

# **25.433 CR 1080** # rev **1** # Current version: **6.4.0** #

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

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

<b>Title:</b>	# Introduction of 'DL Transmission Branch Load' measurement		
<b>Source:</b>	# RAN3		
<b>Work item code:</b>	# TEI6	<b>Date:</b>	# 18/02/2005
<b>Category:</b>	# <b>B</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	# With the current specifications, it is not possible for the Node B to report to the RNC some internal power limitations (e.g. power amplifier) with respect to each transmission branch. In case of Tx diversity this can lead to signal degradation (e.g. EVM increase due to signal compression) and potentially call drops (e.g. suboptimal call and congestion control algorithms). This effect ONLY occurs if TX diversity is used.  Misalignment of the Assigned Criticality of the UpPTS interference Value in the <i>Common Measurement Value</i> IE between ASN.1 and tabular format.
<b>Summary of change:</b>	# Introduction of a new UTRAN measurement reporting the maximum of the branch loads calculated for each TX branch.  Alignment of the Assigned Criticality of the UpPTS interference Value in the <i>Common Measurement Value</i> IE to ASN.1.  Rev1: ASN1 ProtocolIE-IDs added and FDD tagging added where applicable
<b>Consequences if not approved:</b>	# Internal transmission Node B power limitations in case of TX diversity cannot be reported and may lead to QoS degradation and suboptimal call congestion and call control operations.  The ASN.1 and tabular format of the Assigned Criticality of the UpPTS interference Value in the <i>Common Measurement Value</i> IE remains unaligned.

**Clauses affected:** # 8.2.8.4, 9.1.18, 9.1.19, 9.1.21, 9.2.1.11, 9.2.1.12, 9.2.1.44, 9.3.3, 9.3.4, 9.3.6

<b>Other specs</b>	⌘	<b>Y</b>	<b>N</b>	Other core specifications	⌘	TS 25.215 CR147r4, TS 25.302, CR 151 TS 25.133 CR707r1
		<b>X</b>				
<b>affected:</b>			<b>X</b>	Test specifications		
			<b>X</b>	O&M Specifications		
<b>Other comments:</b>	⌘					

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TEXT OMITTED

#### 8.2.8.4 Abnormal Conditions

If the Common Measurement Type received in the *Common Measurement Type* IE, except for ~~the~~ “HS-DSCH Required Power” ~~and the~~ “HS-DSCH Provided Bit Rate” [FDD - and “DL Transmission Branch Load”], is not defined in ref. [4] or [5] to be measured on the Common Measurement Object Type received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

[FDD - If the Common Measurement Type received in the *Common Measurement Type* IE is “DL Transmission Branch Load” and the Common Measurement Object Type received in the *Common Measurement Object Type* IE is not “Cell” or “Power Local Cell Group” the Node B shall regard the Common Measurement Initiation procedure as failed.]

[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 present in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.]

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 Node B 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 Node B shall reject the 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 Node B shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to “UTRAN GPS Timing of Cell Frames for UE Positioning”, but the  $T_{UTRAN-GPS}$  *Measurement Accuracy Class* IE in the *Common Measurement Accuracy* IE is not included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

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 Node B shall regard the Common Measurement Initiation procedure as failed.

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 Node B shall regard the Common Measurement Initiation procedure as failed.

Table 4: 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	X	X	X	X	X	X	X	X	
Transmitted Carrier Power	X	X	X	X	X	X	X	X	
Acknowledged PRACH Preambles	X	X	X	X	X	X	X	X	
UL Timeslot ISCP	X	X	X	X	X	X	X	X	
Acknowledged PCPCH Access Preambles	X	X	X	X	X	X	X	X	
Detected PCPCH Access Preambles	X	X	X	X	X	X	X	X	
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X
SFN-SFN Observed Time Difference	X	X							X
Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission	X	X	X	X	X	X	X	X	
HS-DSCH Required Power	X	X	X	X			X	X	
HS-DSCH Provided Bit Rate	X	X							
Received Total Wide Band Power for Cell Portion	X	X	X	X	X	X	X	X	
Transmitted Carrier Power for Cell Portion	X	X	X	X	X	X	X	X	
Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission for Cell Portion	X	X	X	X	X	X	X	X	
UpPTS interference	X	X	X	X	X	X	X	X	
<a href="#">DL Transmission Branch Load</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>	<a href="#">X</a>			<a href="#">X</a>	<a href="#">X</a>	

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 Node B shall regard the Common Measurement Initiation procedure as failed.

TEXT OMITTED

## 9.1.18 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	reject
CHOICE <i>Common Measurement Object Type</i>	M				YES	reject
>Cell					–	
>>C-ID	M		9.2.1.9		–	
>>Time Slot	O		9.2.3.23	Applicable to 3.84Mcps TDD only	–	
>>Time Slot LCR	O		9.2.3.24A	Applicable to 1.28Mcps TDD only	YES	reject
>>Neighbouring Cell Measurement Information		0..<maxno MeasNCells>			GLOBAL	ignore
>>>CHOICE Neighbouring Cell Measurement Information					–	
>>>>Neighbouring FDD Cell Measurement Information				FDD only	–	
>>>>Neighbouring FDD Cell Measurement Information	M		9.2.1.47C		–	
>>>>Neighbouring TDD Cell Measurement Information				Applicable to 3.84Mcps TDD only	–	
>>>>Neighbouring TDD Cell Measurement Information	M		9.2.1.47D		–	
>>>>Additional Neighbouring Cell Measurement Information					–	
>>>>Neighbouring TDD Cell Measurement Information LCR				Applicable to 1.28Mcps TDD only	–	
>>>>>Neighbouring TDD Cell Measurement Information LCR	M		9.2.1.47E		YES	reject
>RACH				FDD only	–	
>>C-ID	M		9.2.1.9		–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>CPCH				FDD only	–	
>>C-ID	M		9.2.1.9		–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Spreading Factor	O		Minimum UL Channelisation Code Length		–	

			9.2.2.22			
<a href="#">&gt;Additional Common Measurement Object Types</a>					=	
<a href="#">&gt;&gt;Power Local Cell Group</a>					=	
<a href="#">&gt;&gt;&gt;Power Local Cell Group ID</a>	M		<a href="#">9.2.1.49B</a>		YES	reject
Common Measurement Type	M		9.2.1.11		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject
SFN Reporting Indicator	M		FN Reporting Indicator 9.2.1.29B		YES	reject
SFN	O		9.2.1.53A		YES	reject
Common Measurement Accuracy	O		9.2.1.9B		YES	reject
Measurement Recovery Behavior	O		9.2.1.43A		YES	ignore

Range Bound	Explanation
<i>maxnoMeasNCells</i>	Maximum number of neighbouring cells that can be measured on.

## 9.1.19 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Common Measurement Object Type</i>	O			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>Cell					–	
>>Common Measurement Value	M		9.2.1.12		–	
>RACH				FDD only	–	
>>Common Measurement Value	M		9.2.1.12		–	
>CPCH				FDD only	–	
>>Common Measurement Value	M		9.2.1.12		–	
>Additional Common Measurement Object Types					=	
>>Power Local Cell Group					=	
>>>Common Measurement Value	<u>M</u>		<u>9.2.1.12</u>		<u>YES</u>	<u>ignore</u>
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Common Measurement Achieved Accuracy	O		Common Measurement Accuracy 9.2.1.9B		YES	ignore
Measurement Recovery Support Indicator	O		9.2.1.43C		YES	ignore

## 9.1.20 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

## 9.1.21 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Common Measurement Object Type</i>	M			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>Cell					–	
>>Common Measurement Value Information	M		9.2.1.12A		–	
>RACH				FDD only	–	
>>Common Measurement Value Information	M		9.2.1.12A		–	
>CPCH				FDD only	–	
>>Common Measurement Value Information	M		9.2.1.12A		–	
>Additional Common Measurement Object Types					=	
>>Power Local Cell Group					=	
>>>Common Measurement Value Information	M		9.2.1.12A		YES	ignore
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Measurement Recovery Reporting Indicator	O		9.2.1.43B		YES	ignore

**TEXT OMITTED**

## 9.2.1.11 Common Measurement Type

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED ( Received Total Wide Band Power, Transmitted Carrier Power, Acknowledged PRACH Preambles, UL Timeslot ISCP, Acknowledged PCPCH Access Preambles, Detected PCPCH Access Preambles, ..., UTRAN GPS Timing of Cell Frames for UE Positioning, SFN-SFN Observed Time Difference, Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission, HS-DSCH Required Power, HS-DSCH Provided Bit Rate, Received Total Wide Band Power for Cell Portion, Transmitted Carrier Power for Cell Portion, Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission for Cell Portion, UpPTS Interference, <a href="#">DL Transmission Branch Load</a> )	"UL Timeslot ISCP" is used by TDD only, "Acknowledged PRACH Preambles", "Acknowledged PCPCH Access Preambles", "Detected PCPCH Access Preambles", " <a href="#">DL Transmission Branch Load</a> " are used by FDD only, "UpPTS interference" is used by 1.28Mcps TDD only

9.2.1.12 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 <i>Common Measurement Value</i>	M				–	
> <i>Transmitted Carrier Power</i>					–	
>> <i>Transmitted Carrier Power Value</i>	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
> <i>Received Total Wide Band Power</i>					–	
>> <i>Received Total Wide Band Power Value</i>	M		INTEGER (0..621)	According to mapping in [22] and [23]	–	
> <i>Acknowledged PRACH Preambles</i>				FDD Only	–	
>> <i>Acknowledged PRACH Preamble Value</i>	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>UL Timeslot ISCP</i>				TDD Only	–	
>> <i>UL Timeslot ISCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>Acknowledged PCPCH Access Preambles</i>				FDD Only	–	
>> <i>Acknowledged PCPCH Access Preambles</i>	M		INTEGER (0..15,...)	According to mapping in [22]	–	
> <i>Detected PCPCH Access Preambles</i>				FDD Only	–	
>> <i>Detected PCPCH Access Preambles</i>	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>Additional Common Measurement Values</i>					–	
>> <i>UTRAN GPS Timing Of Cell Frames for UE Positioning</i>					–	
>>> <i>T<sub>UTRAN-GPS</sub> Measurement Value Information</i>	M		9.2.1.64A		YES	ignore
>> <i>SFN-SFN Observed Time Difference</i>					–	
>>> <i>SFN-SFN Measurement Value Information</i>	M		9.2.1.53E		YES	ignore
>> <i>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission</i>					–	
>>> <i>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission Value</i>	M		INTEGER (0..100)	According to mapping in [22] and [23]	YES	ignore
>> <i>HS-DSCH Required Power</i>					–	
>>> <i>HS-DSCH Required Power Value Information</i>	M		9.2.1.31lc		YES	ignore



>>HS-DSCH Provided Bit Rate					–	
>>>HS-DSCH Provided Bit Rate Value Information	M		9.2.1.31Ib		YES	ignore
>>Transmitted Carrier Power For Cell Portion					–	
>>>Transmitted Carrier Power For Cell Portion Value		1..< maxNrOfCellPortions>		FDD Only	GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Transmitted Carrier Power Value	M		INTEGER (0..100)	According to mapping in [22]	–	
>>Received Total Wide Band Power For Cell Portion					–	
>>>Received Total Wide Band Power For Cell Portion Value		1..< maxNrOfCellPortions>		FDD Only	GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Received Total Wide Band Power Value	M		INTEGER (0..621)	According to mapping in [22]	–	
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission For Cell Portion					–	
>>>Transmitted Carrier Power Of All Codes Not Used For HS- PDSCH Or HS- SCCH Transmission For Cell Portion Value		1..< maxNrOfCellPortions>		FDD Only	GLOBAL	ignore
>>>>Cell Portion ID	M		9.2.2.1Ca		–	
>>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission Value	M		INTEGER (0..100)	According to mapping in [22]	–	
>>UpPTS interference				1.28Mcps TDD Only	–	
>>>UpPTS interference Value	M		INTEGER (0..127,...)	According to mapping in [23]	YES	ignorereject
>>DL Transmission Branch Load				FDD Only	=	
>>>NodeB DL Transmission Branch Load Values	M		INTEGER (0..101,...)	According to mapping in [22]	YES	ignore

Range Bound	Explanation
<i>MaxNrOfCellPortions</i>	Maximum number of Cell Portions in a cell

**TEXT OMITTED**

#### 9.2.1.44 Measurement Threshold

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Measurement Threshold</i>	M				–	
> <i>Received Total Wide Band Power</i>					–	
>> <i>Received Total Wide Band Power</i>	M		INTEGER (0..621)	According to mapping in [22] and [23]	–	
> <i>Transmitted Carrier Power</i>					–	
>> <i>Transmitted Carrier Power</i>	M		INTEGER (0..100)	According to mapping in [22] and [23]	–	
> <i>Acknowledged PRACH Preambles</i>				FDD only	–	
>> <i>Acknowledged PRACH Preambles</i>	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>UL Timeslot ISCP</i>				TDD only	–	
>> <i>UL Timeslot ISCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>SIR</i>					–	
>> <i>SIR</i>	M		INTEGER (0..63)	According to mapping in [22] and [23]	–	
> <i>SIR Error</i>				FDD only	–	
>> <i>SIR Error</i>	M		INTEGER (0..125)	According to mapping in [22]	–	
> <i>Transmitted Code Power</i>					–	
>> <i>Transmitted Code Power</i>	M		INTEGER (0..127)	According to mapping in [22] and [23]	–	
> <i>RSCP</i>				TDD only	–	
>> <i>RSCP</i>	M		INTEGER (0..127)	According to mapping in [23]	–	
> <i>Rx Timing Deviation</i>				Applicable to 3.84Mcps TDD only	–	
>> <i>Rx Timing Deviation</i>	M		INTEGER (0..8191)	According to mapping in [23]	–	
> <i>Round Trip Time</i>				FDD only	–	
>> <i>Round Trip Time</i>	M		INTEGER (0..32767)	According to mapping in [22]	–	
> <i>Acknowledged PCPCH Access Preambles</i>				FDD only	–	
>> <i>Acknowledged PCPCH Access Preambles</i>	M		INTEGER (0..15,...)	According to mapping in [22]	–	
> <i>Detected PCPCH Access Preambles</i>				FDD only	–	
>> <i>Detected PCPCH Access Preambles</i>	M		INTEGER (0..240,...)	According to mapping in [22]	–	
> <i>Additional Measurement Thresholds</i>					–	
>> <i>UTRAN GPS Timing Of Cell Frames For UE Positioning</i>					–	
>>> <i>T<sub>UTRAN-GPS</sub> Measurement Threshold Information</i>	M		9.2.1.64B		YES	reject
>> <i>SFN-SFN Observed Time Difference</i>					–	
>>> <i>SFN-SFN Measurement Threshold</i>	M		9.2.1.53C		YES	reject

Information						
>>Rx Timing Deviation LCR				Applicable to 1.28Mcps TDD Only	–	
>>>Rx Timing Deviation LCR	M		INTEGER (0..511)	According to mapping in [23]	YES	reject
>>HS-SICH Reception Quality				Applicable to TDD Only	–	
>>>HS-SICH Reception Quality	M		INTEGER (0..20)	According to mapping in [23]	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission					–	
>>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission	M		INTEGER (0..100)	According to mapping in [22] and [23]	YES	reject
>>HS-DSCH Required Power					–	
>>>HS-DSCH Required Power Value	M		9.2.1.31ba		YES	reject
>>Transmitted Carrier Power For Cell Portion				FDD only	–	
>>>Transmitted Carrier Power For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power measurement in [22]	YES	reject
>>Received Total Wide Band Power For Cell Portion				FDD only	–	
>>>Received Total Wide Band Power For Cell Portion	M		INTEGER (0..621)	Mapping identical to the one for Received Total Wide Band Power measurement in [22]	YES	reject
>>Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission For Cell Portion				FDD only	–	
>>> Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission Value For Cell Portion	M		INTEGER (0..100)	Mapping identical to the one for Transmitted Carrier Power Of All Codes Not Used For HS-PDSCH Or HS-SCCH Transmission measurement in [22]	YES	reject
>>UpPTS interference				1.28Mcps TDD Only	–	
>>>UpPTS interference Value	M		INTEGER (0..127,...)	According to mapping in [23]	YES	reject
>>DL Transmission Branch Load				<a href="#">FDD Only</a>	=	
>>>DL Transmission Branch Load	<a href="#">M</a>		<a href="#">INTEGER (0..101,...)</a>	<a href="#">According to mapping in [22]</a>	<a href="#">YES</a>	<a href="#">reject</a>

<a href="#">Value</a>						
-----------------------	--	--	--	--	--	--

TEXT OMITTED

### 9.3.3 PDU Definitions

```

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
  Active-Pattern-Sequence-Information,
  AddorDeleteIndicator,
  AICH-Power,

  id-PICH-Information,
  id-PICH-Parameters-CTCH-ReconfRqstTDD,
  id-PICH-ParametersItem-CTCH-SetupRqstTDD,
  id-PowerAdjustmentType,
  id-Power-Local-Cell-Group-choice-CM-Rqst,
  id-Power-Local-Cell-Group-choice-CM-Rsp,
  id-Power-Local-Cell-Group-choice-CM-Rprt,
  id-Power-Local-Cell-Group-InformationItem-AuditRsp,
  id-Power-Local-Cell-Group-InformationItem-ResourceStatusInd,
  id-Power-Local-Cell-Group-InformationItem2-ResourceStatusInd,
  id-Power-Local-Cell-Group-InformationList-AuditRsp,

  maxNrOfSyncFramesLCR,
  maxNrOfReceptionsperSyncFrameLCR,
  maxNrOfSyncDLCodesLCR,
  maxNrOfMACdFlows
FROM NBAP-Constants;

-- *****
--
-- COMMON MEASUREMENT INITIATION REQUEST

```

TEXT OMITTED

TEXT OMITTED

TEXT OMITTED

```

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

CommonMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID                CRITICALITY reject  TYPE MeasurementID                PRESENCE mandatory }|
    { ID id-CommonMeasurementObjectType-CM-Rqst  CRITICALITY reject  TYPE CommonMeasurementObjectType-CM-Rqst  PRESENCE mandatory }|
    { ID id-CommonMeasurementType          CRITICALITY reject  TYPE CommonMeasurementType              PRESENCE mandatory }|
    { ID id-MeasurementFilterCoefficient      CRITICALITY reject  TYPE MeasurementFilterCoefficient        PRESENCE optional }|
    { ID id-ReportCharacteristics            CRITICALITY reject  TYPE ReportCharacteristics              PRESENCE mandatory }|
    { ID id-SFNReportingIndicator            CRITICALITY reject  TYPE FNReportingIndicator                PRESENCE mandatory }|
    { ID id-SFN                              CRITICALITY reject  TYPE SFN                                PRESENCE optional },
    ...
}

CommonMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-CommonMeasurementAccuracy          CRITICALITY reject          EXTENSION CommonMeasurementAccuracy      PRESENCE
optional}|
    { ID id-MeasurementRecoveryBehavior      CRITICALITY ignore          EXTENSION MeasurementRecoveryBehavior    PRESENCE optional
},
    ...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                Cell-CM-Rqst,
    rACH                RACH-CM-Rqst,
    cPCH                CPCH-CM-Rqst,
    ...
}
extension-CommonMeasurementObjectType-CM-Rqst Extension-CommonMeasurementObjectType-CM-Rqst
}

Extension-CommonMeasurementObjectType-CM-Rqst ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RqstIE }}

Extension-CommonMeasurementObjectType-CM-RqstIE NBAP-PROTOCOL-IES ::= {
{ ID id-Power-Local-Cell-Group-choice-CM-Rqst CRITICALITY reject TYPE PowerLocalCellGroup-CM-Rqst PRESENCE mandatory }
}

Cell-CM-Rqst ::= SEQUENCE {
    c-ID                C-ID,
    timeSlot           TimeSlot    OPTIONAL, -- Applicable to 3.84Mcps TDD only
    iE-Extensions      ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs } }    OPTIONAL,
    ...
}

CellItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotLCR-CM-Rqst                CRITICALITY reject  EXTENSION TimeSlotLCR                PRESENCE optional }|
    -- Applicable to 1.28Mcps TDD only
    {ID id-NeighbouringCellMeasurementInformation CRITICALITY ignore  EXTENSION NeighbouringCellMeasurementInformation PRESENCE optional },
}

```

```

}
...
}
RACH-CM-Rqst ::= SEQUENCE {
    c-ID                               C-ID,
    commonTransportChannelID           CommonTransportChannelID,
    iE-Extensions                      ProtocolExtensionContainer { { RACHItem-CM-Rqst-ExtIEs } }           OPTIONAL,
    ...
}
RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
CPCH-CM-Rqst ::= SEQUENCE {
    c-ID                               C-ID,
    commonTransportChannelID           CommonTransportChannelID,
    spreadingfactor                   MinUL-ChannelisationCodeLength           OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { CPCHItem-CM-Rqst-ExtIEs } }           OPTIONAL,
    ...
}
CPCHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
PowerLocalCellGroup-CM-Rqst ::= SEQUENCE {
    powerLocalCellGroupID             Local-Cell-ID,
    iE-Extensions                      ProtocolExtensionContainer { { PowerLocalCellGroup-CM-Rqst-ExtIEs } }           OPTIONAL,
    ...
}
PowerLocalCellGroup-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- *****
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- *****
CommonMeasurementInitiationResponse ::= SEQUENCE {
    protocolIEs                       ProtocolIE-Container   {{CommonMeasurementInitiationResponse-IEs}},
    protocolExtensions                 ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}           OPTIONAL,
    ...
}
CommonMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID               CRITICALITY ignore           TYPE MeasurementID           PRESENCE mandatory } |
    { ID id-CommonMeasurementObjectType-CM-Rsp CRITICALITY ignore           TYPE CommonMeasurementObjectType-CM-Rsp PRESENCE optional } |
    { ID id-SFN                         CRITICALITY ignore           TYPE SFN                     PRESENCE optional } |
    { ID id-CriticalityDiagnostics       CRITICALITY ignore           TYPE CriticalityDiagnostics   PRESENCE optional },
    ...
}

```



```

CommonMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-CommonMeasurementAccuracy          CRITICALITY ignore          EXTENSION CommonMeasurementAccuracy          PRESENCE optional } |
  { ID id-MeasurementRecoverySupportIndicator CRITICALITY ignore          EXTENSION MeasurementRecoverySupportIndicator PRESENCE optional
  },
  ...
}

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
- cell                Cell-CM-Rsp,
- rACH                RACH-CM-Rsp,
- cPCH                CPCH-CM-Rsp,
  ...
- extension-CommonMeasurementObjectType-CM-Rsp Extension-CommonMeasurementObjectType-CM-Rsp
}

Extension-CommonMeasurementObjectType-CM-Rsp ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RspIE }}

Extension-CommonMeasurementObjectType-CM-RspIE NBAP-PROTOCOL-IES ::= {
{ ID id-Power-Local-Cell-Group-choice-CM-Rsp CRITICALITY ignore          TYPE PowerLocalCellGroup-CM-Rsp          PRESENCE mandatory }
}

Cell-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions                ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs } }          OPTIONAL,
  ...
-}

CellItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RACH-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions                ProtocolExtensionContainer { { RACHItem-CM-Rsp-ExtIEs } }          OPTIONAL,
  ...
-}

RACHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

CPCH-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions                ProtocolExtensionContainer { { CPCHItem-CM-Rsp-ExtIEs } }          OPTIONAL,
  ...
-}

CPCHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PowerLocalCellGroup-CM-Rsp ::= SEQUENCE {

```

```

commonMeasurementValue          CommonMeasurementValue,
iE-Extensions                    ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rsp-ExtIEs}}
...
}
PowerLocalCellGroup-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- *****

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

CommonMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore          TYPE MeasurementID          PRESENCE mandatory }|
    { ID id-Cause                  CRITICALITY ignore          TYPE Cause                    PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore          TYPE CriticalityDiagnostics  PRESENCE optional },
    ...
}

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

-- *****
--
-- COMMON MEASUREMENT REPORT
--
-- *****

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

CommonMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore          TYPE MeasurementID          PRESENCE mandatory }|
    { ID id-CommonMeasurementObjectType-CM-Rprt CRITICALITY ignore          TYPE CommonMeasurementObjectType-CM-Rprt PRESENCE mandatory }|
    { ID id-SFN                    CRITICALITY ignore          TYPE SFN                     PRESENCE optional },
    ...
}

CommonMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {

```

```

    { ID id-MeasurementRecoveryReportingIndicator      CRITICALITY ignore      EXTENSION MeasurementRecoveryReportingIndicator      PRESENCE
optional },
    ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
    cell                Cell-CM-Rprt,
    rACH                RACH-CM-Rprt,
    cPCH               CPCH-CM-Rprt,
    ...
    extension-CommonMeasurementObjectType-CM-Rprt      Extension-CommonMeasurementObjectType-CM-Rprt
-}

Extension-CommonMeasurementObjectType-CM-Rprt      ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementObjectType-CM-RprtIE }}

Extension-CommonMeasurementObjectType-CM-RprtIE NBAP-PROTOCOL-IES ::= {
{ ID id-Power-Local-Cell-Group-choice-CM-Rprt      CRITICALITY ignore      TYPE PowerLocalCellGroup-CM-Rprt      PRESENCE mandatory }
}

Cell-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation      CommonMeasurementValueInformation,
    iE-Extensions                          ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}      OPTIONAL,
    ...
-}

CellItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation      CommonMeasurementValueInformation,
    iE-Extensions                          ProtocolExtensionContainer {{ RACHItem-CM-Rprt-ExtIEs }}      OPTIONAL,
    ...
-}

RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-CM-Rprt ::= SEQUENCE {
    commonMeasurementValueInformation      CommonMeasurementValueInformation,
    iE-Extensions                          ProtocolExtensionContainer {{ CPCHItem-CM-Rprt-ExtIEs }}      OPTIONAL,
    ...
-}

CPCHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerLocalCellGroup-CM-Rprt ::= SEQUENCE {
commonMeasurementValueInformation      CommonMeasurementValueInformation,

```

```

iE-Extensions ProtocolExtensionContainer {{ PowerLocalCellGroup-CM-Rprt-ExtIEs}} OPTIONAL,
...
}
PowerLocalCellGroup-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

```

TEXT OMITTED

### 9.3.4 Information Elements Definitions

```

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

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

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfRLs,
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxCodeNrComp-1,
    maxHS-PDSCHCodeNrComp-1,
    maxHS-SCCHCodeNrComp-1,
    maxNrOfCellSyncBursts,
    maxNrOfCodeGroups,
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfTFCIGroups,
    maxNrOfTFCI1Combs,
    maxNrOfTFCI2Combs,
    maxNrOfTFCI2Combs-1,
    maxNrOfSF,
    maxTGPS,
    maxNrOfUSCHs,
    maxNrOfULTSs,
    maxNrOfULTSLCRs,
    maxNrOfDPCHs,

```

maxNrOfDPCHLCRs,  
 maxNrOfCodes,  
 maxNrOfDSCHs,  
 maxNrOfDLTSS,  
 maxNrOfDLTSLCRs,  
 maxNrOfDCHs,  
 maxNrOfLevels,  
 maxNoGPSItems,  
 maxNoSat,  
 maxNrOfCellPortionsPerCell,  
 maxNrOfCellPortionsPerCell-1,  
 maxNrOfHSSCCHs,  
 maxNrOfHSSCCHCodes,  
 maxNrOfMACdFlows,  
 maxNrOfMACdFlows-1,  
 maxNrOfMACdPDUIndexes,  
 maxNrOfMACdPDUIndexes-1,  
 maxNrOfNIs,  
 maxNrOfPriorityQueues,  
 maxNrOfPriorityQueues-1,  
 maxNrOfHARQProcesses,  
 maxNrOfSyncDLCodesLCR,  
 maxNrOfSyncFramesLCR,  
 maxNrOfContextsOnUeList,  
 maxNrOfPriorityClasses,  
 maxNrOfSatAlmanac-maxNoSat,  
  
 id-MessageStructure,  
 id-ReportCharacteristicsType-OnModification,  
 id-Rx-Timing-Deviation-Value-LCR,  
 id-SFNsFNMeasurementValueInformation,  
 id-SFNsFNMeasurementThresholdInformation,  
 id-TUTRANGPSMeasurementValueInformation,  
 id-TUTRANGPSMeasurementThresholdInformation,  
 id-TypeOfError,  
 id-transportlayeraddress,  
 id-bindingID,  
 id-Angle-Of-Arrival-Value-LCR,  
 id-SyncDLCodeIdThreInfoLCR,  
 id-neighbouringTDDCellMeasurementInformationLCR,  
 id-HS-SICH-Reception-Quality,  
 id-HS-SICH-Reception-Quality-Measurement-Value,  
 id-Initial-DL-Power-TimeslotLCR-InformationItem,  
 id-Maximum-DL-Power-TimeslotLCR-InformationItem,  
 id-Minimum-DL-Power-TimeslotLCR-InformationItem,  
 id-Received-total-wide-band-power-For-CellPortion,  
 id-Received-total-wide-band-power-For-CellPortion-Value,  
 id-Transmitted-Carrier-Power-For-CellPortion,  
 id-Transmitted-Carrier-Power-For-CellPortion-Value,  
 id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission,  
 id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortion,  
 id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortionValue,  
 id-HS-DSCHRequiredPowerValueInformation,

```

id-HS-DSCHProvidedBitRateValueInformation,
id-HS-DSCHRequiredPowerValue,
id-Best-Cell-Portions-Value,
id-Unidirectional-DCH-Indicator,
id-SAT-Info-Almanac-ExtItem,
id-TnlQos,
id-UpPTSInterferenceValue,
id-HARQ-Preamble-Mode,
id-DLTransmissionBranchLoadValue
FROM NBAP-Constants

```

```

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

```

```

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

```

```

-- =====
-- A
-- =====

```

```

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

```

**TEXT OMITTED**

```

CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass    TUTRANGPSAccuracyClass,
    ...
}

```

```

CommonMeasurementType ::= ENUMERATED {
    received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles,
    ...,
    uTRAN-GPS-Timing-of-Cell-Frames-for-UE-Positioning,
    sFN-SFN-Observed-Time-Difference,
    transmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission,
    hS-DSCH-Required-Power,
    hS-DSCH-Provided-Bit-Rate,
    received-total-wide-band-power-for-cellPortion,
    transmitted-carrier-power-for-cellPortion,
    transmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission-for-cellPortion,
}

```

```

upPTS-Interference,
DLTransmissionBranchLoad
}

```

```

CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power          Transmitted-Carrier-Power-Value,
    received-total-wide-band-power     Received-total-wide-band-power-Value,
    acknowledged-prach-preambles      Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                   UL-TimeslotISCP-Value,
    acknowledged-PCPCH-access-preambles Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles   Detected-PCPCH-access-preambles,
    ...,
    extension-CommonMeasurementValue  Extension-CommonMeasurementValue
}

```

```

Extension-CommonMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}

```

```

Extension-CommonMeasurementValueIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementValueInformation          CRITICALITY ignore TYPE TUTRANGPSMeasurementValueInformation PRESENCE mandatory }|
    { ID id-SFNFSNMeasurementValueInformation            CRITICALITY ignore TYPE SFNFSNMeasurementValueInformation PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission CRITICALITY ignore TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionValue PRESENCE mandatory }|
    { ID id-HS-DSCHRequiredPowerValueInformation          CRITICALITY ignore TYPE HS-DSCHRequiredPower PRESENCE
mandatory }|
    { ID id-HS-DSCHProvidedBitRateValueInformation        CRITICALITY ignore TYPE HS-DSCHProvidedBitRate PRESENCE
mandatory }|
    { ID id-Transmitted-Carrier-Power-For-CellPortion-Value CRITICALITY ignore TYPE Transmitted-Carrier-Power-For-CellPortion-Value PRESENCE
mandatory }|
    { ID id-Received-total-wide-band-power-For-CellPortion-Value CRITICALITY ignore TYPE Received-total-wide-band-power-For-CellPortion-Value
PRESENCE mandatory }|
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortionValue CRITICALITY ignore TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortionValue PRESENCE mandatory }|
    { ID id-UpPTSInterferenceValue                       CRITICALITY ignore TYPE UpPTSInterferenceValue PRESENCE mandatory }|
    { ID id-DLTransmissionBranchLoadValue               CRITICALITY ignore TYPE DLTransmissionBranchLoadValue PRESENCE mandatory }|
}

```

```

CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable          CommonMeasurementAvailable,
    measurementnotAvailable      CommonMeasurementnotAvailable
}

```

**TEXT OMITTED**

```

DL-TPC-Pattern01Count ::= INTEGER (0..30,...)

```

```

DLTransmissionBranchLoadValue ::= INTEGER (0..101,...)

```

```

Downlink-Compressed-Mode-Method ::= ENUMERATED {
    puncturing,
    sFdiv2,
    higher-layer-scheduling,
}

```

} ...

**TEXT OMITTED**

```
ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
    received-total-wide-band-power          Received-total-wide-band-power-Value,
    transmitted-carrier-power              Transmitted-Carrier-Power-Value,
    acknowledged-prach-preambles          Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                        UL-TimeslotISCP-Value,
    sir                                    SIR-Value,
    sir-error                              SIR-Error-Value,
    transmitted-code-power                Transmitted-Code-Power-Value,
    rscp                                   RSCP-Value,
    rx-timing-deviation                   Rx-Timing-Deviation-Value,
    round-trip-time                       Round-Trip-Time-Value,
    acknowledged-PCPCH-access-preambles  Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles      Detected-PCPCH-access-preambles,
    ...,
    extension-ReportCharacteristicsType-MeasurementThreshold  Extension-ReportCharacteristicsType-MeasurementThreshold
}
```

```
Extension-ReportCharacteristicsType-MeasurementThreshold ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-MeasurementThresholdIE }}
```

```
Extension-ReportCharacteristicsType-MeasurementThresholdIE NBAP-PROTOCOL-IES ::= {
    { ID id-TUTRANGPSMeasurementThresholdInformation CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation PRESENCE mandatory } |
    { ID id-SFNFSNMeasurementThresholdInformation CRITICALITY reject TYPE SFNFSNMeasurementThresholdInformation PRESENCE mandatory } |
    { ID id-Rx-Timing-Deviation-Value-LCR CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR PRESENCE mandatory } |
    { ID id-HS-SICH-Reception-Quality-Measurement-Value CRITICALITY reject TYPE HS-SICH-Reception-Quality-Measurement-Value PRESENCE mandatory } |
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmission CRITICALITY reject TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionValue PRESENCE mandatory } |
    { ID id-HS-DSCHRequiredPowerValue CRITICALITY reject TYPE HS-DSCHRequiredPowerValue PRESENCE mandatory } |
    { ID id-Transmitted-Carrier-Power-For-CellPortion CRITICALITY reject TYPE Transmitted-Carrier-Power-Value PRESENCE mandatory } |
    { ID id-Received-total-wide-band-power-For-CellPortion CRITICALITY reject TYPE Received-total-wide-band-power-Value PRESENCE mandatory } |
    { ID id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortion CRITICALITY reject TYPE
TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortionValue PRESENCE mandatory } |
    { ID id-UpPTSInterferenceValue CRITICALITY reject TYPE UpPTSInterferenceValue PRESENCE mandatory } |
    { ID id-DLTransmissionBranchLoadValue CRITICALITY reject TYPE DLTransmissionBranchLoadValue PRESENCE mandatory } |
}
```

```
ReportCharacteristicsType-ScaledMeasurementChangeTime ::= CHOICE {
    msec MeasurementChangeTime-Scaledmsec,
    ...
}
```

**TEXT OMITTED**

### 9.3.6 Constant Definitions

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



```

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM NBAP-CommonDataTypes;

-- *****
--
-- Elementary Procedures
--

```

**TEXT OMITTED**

id-NI-Information-NotifUpdateCmd	ProtocolIE-ID ::= 645
id-S-CCPCH-InformationListExt-AuditRsp	ProtocolIE-ID ::= 646
id-S-CCPCH-InformationListExt-ResourceStatusInd	ProtocolIE-ID ::= 647
id-S-CCPCH-LCR-InformationListExt-AuditRsp	ProtocolIE-ID ::= 648
id-S-CCPCH-LCR-InformationListExt-ResourceStatusInd	ProtocolIE-ID ::= 649
id-HARQ-Preamble-Mode	ProtocolIE-ID ::= 650
<u>id-DLTransmissionBranchLoadValue</u>	<u>ProtocolIE-ID ::= 653</u>
<u>id-Power-Local-Cell-Group-choice-CM-Rgst</u>	<u>ProtocolIE-ID ::= 654</u>
<u>id-Power-Local-Cell-Group-choice-CM-Rsp</u>	<u>ProtocolIE-ID ::= 655</u>
<u>id-Power-Local-Cell-Group-choice-CM-Rprt</u>	<u>ProtocolIE-ID ::= 656</u>

```

END

```

### 9.3.7 Container Definitions

**TEXT OMITTED**

## CHANGE REQUEST

# 25.215 CR 147 # rev 4 # Current version: 6.1.0 #

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

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

<b>Title:</b>	# Introduction of 'DL Transmission Branch Load' measurement		
<b>Source:</b>	# RAN WG1		
<b>Work item code:</b>	# TEI6	<b>Date:</b>	# 07/02/2005
<b>Category:</b>	# <b>B</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: Ph2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6) Rel-7 (Release 7)

<b>Reason for change:</b>	# With the current specifications, it is not possible for the Node B to report to the RNC some internal power limitations (e.g. power amplifier) with respect to each transmission branch. In case of Tx diversity this can lead to signal degradation (e.g. EVM increase due to signal compression) and potentially call drops (e.g. suboptimal call and congestion control algorithms). This effect ONLY occurs if TX diversity is used.
<b>Summary of change:</b>	# Introduction of a new UTRAN measurement reporting the maximum of the branch loads calculated for each TX branch.
<b>Consequences if not approved:</b>	# Internal transmission Node B power limitations in case of TX diversity cannot be reported and may lead to QoS degradation and suboptimal call congestion and call control operations.

<b>Clauses affected:</b>	# 5.2.x (new)										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;">X</td> <td style="width: 20px;"></td> </tr> <tr> <td style="width: 20px;"></td> <td style="width: 20px;">X</td> </tr> <tr> <td style="width: 20px;"></td> <td style="width: 20px;">X</td> </tr> </table> Other core specifications	Y	N	X			X		X	#	TS 25.302 CR151 (RAN2), TS 25.433 CR1080 (RAN3), TS 25.133 CR707 (RAN4)
Y	N										
X											
	X										
	X										
<b>Other comments:</b>	# Revision of R1-041494 (which was agreed at RAN1 #39) was necessary as RAN #26 decided to have the complete CR package at RAN #27 and TS 25.215 had a new version after RAN #26, i.e. contents of the CR was not modified in this CR.										

For the section 5.2.x it is suggested to take 5.2.16.

**How to create CRs using this form:**

Comprehensive information and tips about how to create CRs can be found at <http://www.3gpp.org/specs/CR.htm>. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

TEXT OMITTED

## 5.2 UTRAN measurement abilities

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

<b>Column field</b>	Comment
<b>Definition</b>	Contains the definition of the measurement.

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

TEXT OMITTED

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

<b>Definition</b>	Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission is the ratio between the total transmitted power of all codes not used for HS-PDSCH or HS-SCCH transmission on one DL carrier from one UTRAN access point, and the maximum transmission power possible to use on that DL carrier at this moment of time. Total transmission power of all codes not used for HS-PDSCH or HS-SCCH transmission is the mean power [W] of all codes not used for HS-PDSCH or HS-SCCH transmission on one carrier from one UTRAN access point. Maximum transmission power is the mean power [W] on one carrier from one UTRAN access point when transmitting at the configured maximum power for the cell. The measurement shall be possible on any carrier transmitted from the UTRAN access point. The reference point for the transmitted carrier power measurement of all codes not used for HS-PDSCH or HS-SCCH transmission shall be the Tx antenna connector. In case of Tx diversity the transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission is the ratio between the sum of the total transmitted powers of all codes not used for HS-PDSCH or HS-SCCH transmission of all branches and the maximum transmission power. When cell portions are defined in the cell, the transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission for each cell portion shall be measured and reported to higher layers.
-------------------	---

### 5.2.x DL Transmission Branch Load

<b>Definition</b>	<p><u>The 'DL transmission branch load' is the maximum of the transmission branch loads calculated for each branch.</u></p> <p><u>A 'transmission branch load' is the ratio between the total transmitted power [W] on the considered branch and the 'maximum DL branch capability' on this branch.</u></p> <p><u>The 'maximum DL branch capability' defines the maximum transmission power possible to use on that branch.</u></p> <p><u>The reference point for the transmission branch load measurement shall be the TX antenna connector.</u></p>
-------------------	---

TEXT OMITTED