

CR-Form-v7

CHANGE REQUEST

25.423 CR 966 # rev **1** # 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

Title:	#	Measurement Recovery Behavior for Common and Dedicated Measurement Procedures	
Source:	#	RAN3	
Work item code:	#	TEI6	Date: # 10/05/2004
Category:	#	C	Release: # Rel-6
		Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	#	Currently for Common or Dedicated Measurement Procedures an initiating RNC is only informed when a measurement becomes temporarily unavailable. If the measurement becomes available again it is not possible for the reporting RNC to report this to the initiating RNC. The situation is discussed in more detail in discussion paper Tdoc R3-031342.
Summary of change:	#	An additional IE is added to the COMMON/DEDICATED MEASUREMENT INITIATION REQUEST, COMMON/DEDICATED MEASUREMENT INITIATION RESPONSE and the COMMON/DEDICATED MEASUREMENT REPORT messages. The behavior description of the COMMON/DEDICATED MEASUREMENT INITIATION procedure and the COMMON/DEDICATED MEASUREMENT REPORTING procedure is adopted.
Consequences if not approved:	#	Information recovery reporting not possible.

Clauses affected:	#	8.3.11.2, 8.3.12.2, 8.5.2.2, 8.5.3.2, 9.1.28, 9.1.29, 9.1.31, 9.1.43, 9.1.44, 9.1.46, 9.3.3, 9.3.4, 9.3.6 new: 9.2.1.xx, 9.2.1.yy, 9.2.1.zz								
Other specs affected:	#	<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>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications # CR997 25.433 Rel-6 Test specifications O&M Specifications	Y	N	X			X		X
Y	N									
X										
	X									
	X									
Other comments:	#									

How to create CRs using this form:

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

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

8.3.11 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

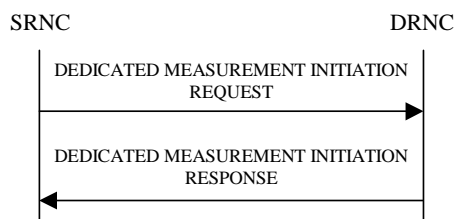


Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

/ partly omitted */*

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 F_n).

$a = 1/2^{(k/2)}$, 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.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message, the DRNS shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.12.2.

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

/* partly omitted */

8.3.12 Dedicated Measurement Reporting

/* partly omitted */

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] or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, 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 DRNC was configured to perform the Measurement Recovery Behavior, the DRNC shall indicate Measurement Available to the SRNC when the achieved measurement accuracy again fullfils the given accuracy requirement (see ref. [23] and [24]) and include the Measurement Recovery Report Indicator IE in the DEDICATED MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

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

-

/ partly omitted */*

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

/ partly omitted */*

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 F_n).

$a = 1/2^{(k/2)}$, 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.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior IE* is included in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator IE* in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.5.3.2.

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 Frame 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

/* partly omitted */

8.5.3 Common Measurement Reporting

/* partly omitted */

8.5.3.2 Successful Operation

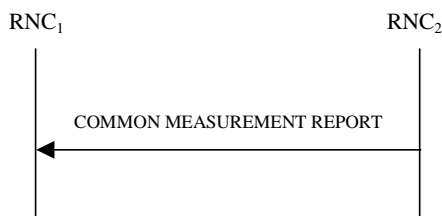


Figure 30C: Common Measurement Reporting procedure, Successful Operation

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]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information IE* shall indicate Measurement not Available. If the RNC₂ was configured to perform the Measurement Recovery Behavior, the RNC₂ shall indicate Measurement Available to the RNC₁ when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [23] and [24]) and include the Measurement Recovery Report Indicator IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

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

/* partly omitted */

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 <i>Dedicated Measurement Object Type</i>	M				YES	reject
>RL					–	
>>RL Information		1..<maxn oofRLs>			EACH	reject
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>HS-SICH Information		0..<maxn oofHSSI CHs>		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.3ad		–	
>RLS				FDD only	–	
>>RL Set Information		1..<maxn oofRLSets>			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	O		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
CFN reporting indicator	M		FN reporting indicator 9.2.1.28A		YES	reject
CFN	O		9.2.1.9		YES	reject
Partial Reporting Indicator	O		9.2.1.41Fa		YES	ignore
Measurement Recovery Behavior	<u>O</u>		9.2.1.xx		<u>YES</u>	<u>ignore</u>

Range bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs a measurement can be started on.
<i>maxnoofRLSets</i>	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 <i>Dedicated Measurement Object Type</i>	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1	–	
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	
>>>HS-SICH ID	O		9.2.3.3ad	TDD only	YES	reject
>RLS or ALL RLS				FDD only See Note 2	–	
>>RL Set Information		1..<maxno ofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	–	
Criticality Diagnostics	O		9.2.1.13		YES	Ignore
Measurement Recovery Support Indicator	O		9.2.1.yy		YES	ignore

Range bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs the measurement can be started on.
<i>maxnoofRLSets</i>	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.

/* partly omitted */

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 <i>Dedicated Measurement Object Type</i>	M			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1	–	
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		–	
>>>HS-SICH ID	O		9.2.3.3ad	TDD only	YES	ignore
>RLS or ALL RLS				FDD only See Note 2	–	
>>RL Set Information		1..<maxnoofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		–	
Measurement Recovery Reporting Indicator	O		9.2.1.zz		YES	ignore

Range bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLS the measurement can be started on.
<i>maxnoofRLSets</i>	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.

/* partly omitted */

9.1.43 COMMON 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 <i>Common Measurement Object Type</i>	M				YES	reject
>Cell					–	
>>Reference Cell Identifier	M		UTRAN Cell Identifier 9.2.1.71	May be a GERAN Cell Identifier	–	
>>Time Slot	O		9.2.1.56	3.84Mcps TDD only	–	
>>Time Slot LCR	O		9.2.3.12a	1.28Mcps TDD only	–	
>>Neighbouring Cell Measurement Information		0..<maxnof MeasNCells >		UTRAN only	–	
>>>CHOICE Neighbouring Cell Measurement Information					–	
>>>>Neighbouring FDD Cell Measurement Information				FDD only	–	
>>>>Neighbouring FDD Cell Measurement Information	M		9.2.1.41G		–	
>>>>Neighbouring TDD Cell Measurement Information				3.84Mcps TDD only	–	
>>>>Neighbouring TDD Cell Measurement Information	M		9.2.1.41H		–	
>>>>Additional Neighbouring Cell Measurement Information					–	
>>>>Neighbouring TDD Cell Measurement InformationLCR				1.28Mcps TDD only	–	
>>>>>Neighbouring TDD Cell Measurement InformationLCR	M		9.2.1.41Dd		YES	reject
Common Measurement Type	M		9.2.1.12C		YES	reject
Measurement Filter Coefficient	O		9.2.1.41	UTRAN only	YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
SFN reporting indicator	M		FN reporting indicator		YES	reject

			9.2.1.28A			
SFN	O		9.2.1.52A	UTRAN only	YES	reject
Common Measurement Accuracy	O		9.2.1.12A	UTRAN only	YES	reject
Measurement Recovery Behavior	O		9.2.1.xx	UTRAN only	YES	ignore

Range bound	Explanation
<i>maxnoofMeasNCell</i>	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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE <i>Common Measurement Object Type</i>	O			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
<i>>Cell</i>					–	
<i>>>Common Measurement value</i>	M		9.2.1.12D		–	
SFN	O		9.2.1.52A	Common Measurement Time Reference, UTRAN only.	YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore
Common Measurement Achieved Accuracy	O		Common Measurement Accuracy 9.2.1.12A	UTRAN only	YES	ignore
Measurement Recovery Support Indicator	O		9.2.1.yy	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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		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	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		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		9.2.1.12E		–	
SFN	O		9.2.1.52A	Common Measurement Time Reference, UTRAN only.	YES	ignore
Measurement Recovery Reporting Indicator	O		9.2.1.zz	UTRAN only	YES	ignore

/* partly omitted */

9.2.1.xx Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
Measurement Recovery Behavior			NULL	

9.2.1.yy Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
Measurement Recovery Support Indicator			NULL	

9.2.1.zz Measurement Recovery Reporting Indicator

This IE indicates the Measurement Recovery Reporting.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
Measurement Recovery Reporting Indicator			NULL	

/* partly omitted */

9.3.3 PDU Definitions

/* partly omitted */

LengthOfTFICI2,
 LimitedPowerIncrease,
 MaximumAllowedULTxPower,
 MaxNrDLPhysicalchannels,
 MaxNrDLPhysicalchannelsTS,
 MaxNrOfUL-DPCHs,
 MaxNrTimeslots,
 MaxNrULPhysicalchannels,
 MeasurementFilterCoefficient,
 MeasurementID,
[MeasurementRecoveryBehavior](#),
[MeasurementRecoveryReportingIndicator](#),
[MeasurementRecoverySupportIndicator](#),
 MidambleAllocationMode,
 MidambleShiftAndBurstType,
 MidambleShiftLCR,
 MinimumSpreadingFactor,
 MinUL-ChannelisationCodeLength,
 MultiplexingPosition,
 NeighbouringFDDCellMeasurementInformation,
 NeighbouringTDDCellMeasurementInformation,
 Neighbouring-GSM-CellInformation,
 Neighbouring-UMTS-CellInformation,

/* partly omitted */

id-InnerLoopDLPCStatus,
 id-SplitType,
 id-LengthOfTFICI2,
 id-L3-Information,
 id-AdjustmentPeriod,
 id-MaxAdjustmentStep,
 id-MeasurementFilterCoefficient,
 id-MeasurementID,
[id-MeasurementRecoveryBehavior](#),
[id-MeasurementRecoveryReportingIndicator](#),
[id-MeasurementRecoverySupportIndicator](#),
 id-Multiple-RL-InformationResponse-RL-ReconfReadyTDD,
 id-PagingArea-PagingRqst,
 id-PartialReportingIndicator,
 id-PDSCH-RL-ID,
 id-Permanent-NAS-UE-Identity,
 id-Phase-Reference-Update-Indicator,

id-FACH-FlowControlInformation,
id-PowerAdjustmentType,
id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
id-Primary-CPICH-Usage-For-Channel-Estimation,
id-PropagationDelay,
id-Qth-Parameter,

/* partly omitted */


```

-- *****
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- *****

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

DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY reject TYPE MeasurementID          PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY reject TYPE DedicatedMeasurementObjectType-DM-Rqst PRESENCE mandatory } |

    { ID id-DedicatedMeasurementType          CRITICALITY reject TYPE DedicatedMeasurementType          PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient      CRITICALITY reject TYPE MeasurementFilterCoefficient      PRESENCE optional } |
    { ID id-ReportCharacteristics             CRITICALITY reject TYPE ReportCharacteristics             PRESENCE mandatory } |
    { ID id-CFNReportingIndicator             CRITICALITY reject TYPE FNReportingIndicator             PRESENCE mandatory } |
    { ID id-CFN                               CRITICALITY reject TYPE CFN                               PRESENCE optional } ,
    ...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL                RL-DM-Rqst,
    rLS               RL-Set-DM-Rqst,
    allRL             All-RL-DM-Rqst,
    allRLS           All-RL-Set-DM-Rqst,
    ...
}

RL-DM-Rqst ::= SEQUENCE {
    rL-InformationList-DM-Rqst    RL-InformationList-DM-Rqst,
    iE-Extensions                ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } } OPTIONAL,
    ...
}

RLItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

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

RL-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-ID                RL-ID,
    dPCH-ID              DPCH-ID          OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
    ...
}

```

```

}

RL-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-HSSICH-Info-DM-Rqst      CRITICALITY reject      EXTENSION  HSSICH-Info-DM-Rqst      PRESENCE optional},
  -- 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-Rqst-ExtIEs} } OPTIONAL,
  ...
}

RL-SetItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rqst-
IEs} }

RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-DM-Rqst      CRITICALITY reject  TYPE RL-Set-InformationItem-DM-Rqst      PRESENCE mandatory  }
}

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
  rL-Set-ID                                RL-Set-ID,
  iE-Extensions                            ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
  ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

All-RL-DM-Rqst ::= NULL

All-RL-Set-DM-Rqst ::= NULL

DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-PartialReportingIndicator      CRITICALITY ignore      EXTENSION  PartialReportingIndicator      PRESENCE optional
  } |
  { ID  id-MeasurementRecoveryBehavior    CRITICALITY ignore      EXTENSION  MeasurementRecoveryBehavior    PRESENCE optional
  },
  ...
}

-- *****
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--

```

-- *****

```

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

DedicatedMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY ignore TYPE MeasurementID          PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rsp PRESENCE optional } |
    { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE 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 ::= SEQUENCE {
    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 ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp    RL-Set-InformationList-DM-Rsp,
    iE-Extensions                    ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp CRITICALITY ignore TYPE RL-InformationItem-DM-Rsp PRESENCE mandatory }
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                RL-ID,
    dPCH-ID              DPCH-ID OPTIONAL,
    dedicatedMeasurementValue DedicatedMeasurementValue,
}

```

```

cFN                                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 ::= SEQUENCE {
  rL-Set-ID                               RL-Set-ID,
  dedicatedMeasurementValue                DedicatedMeasurementValue,
  cFN                                       CFN                                OPTIONAL,
  iE-Extensions                           ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
  ...
}

RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-MeasurementRecoverySupportIndicator          CRITICALITY ignore          EXTENSION   MeasurementRecoverySupportIndicator          PRESENCE optional
  },
  ...
}

/* partly omitted */

-- *****
--
-- DEDICATED MEASUREMENT REPORT
--
-- *****

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

DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore   TYPE MeasurementID          PRESENCE mandatory   } |
  { ID id-DedicatedMeasurementObjectType-DM-Rprt          CRITICALITY ignore   TYPE DedicatedMeasurementObjectType-DM-Rprt          PRESENCE mandatory   },
}

```

```

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

```

```
RL-Set-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-DM-Rprt      CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rprt      PRESENCE mandatory  }
}
```

```
RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
  rL-Set-ID          RL-Set-ID,
  dedicatedMeasurementValueInformation  DedicatedMeasurementValueInformation,
  iE-Extensions      ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
  ...
}
```

```
RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-MeasurementRecoveryReportingIndicator  CRITICALITY ignore  EXTENSION MeasurementRecoveryReportingIndicator  PRESENCE optional },
  ...
}
```

```
/* partly omitted */
```

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

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

```
CommonMeasurementInitiationRequest-IEs RNSAP-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
  }|
  -- UTRAN only
  { ID id-ReportCharacteristics          CRITICALITY reject          TYPE ReportCharacteristics          PRESENCE mandatory
  }|
  { ID id-SFNReportingIndicator          CRITICALITY reject          TYPE SFNReportingIndicator          PRESENCE mandatory
  }|
  { ID id-SFN                          CRITICALITY reject          TYPE SFN                          PRESENCE optional
  }|
}
```

```

-- UTRAN only
{ ID id-CommonMeasurementAccuracy          CRITICALITY reject          TYPE CommonMeasurementAccuracy          PRESENCE optional
},
-- UTRAN only
...
}

CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
 { ID id-MeasurementRecoveryBehavior          CRITICALITY ignore          EXTENSION MeasurementRecoveryBehavior          PRESENCE optional
 },
-- UTRAN only
...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
cell Cell-CM-Rqst,
...
}

Cell-CM-Rqst ::= SEQUENCE {
uC-ID UC-ID,
-- May be a GERAN cell identifier
timeSlot TimeSlot OPTIONAL, --3.84Mcps TDD only
timeSlotLCR TimeSlotLCR OPTIONAL, --1.28Mcps TDD only
neighbouringCellMeasurementInformation NeighbouringCellMeasurementInfo 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
}

Extension-neighbouringCellMeasurementInformation ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}

Extension-neighbouringCellMeasurementInformationIE RNSAP-PROTOCOL-IES ::= {
{ ID id-neighbouringTDDCellMeasurementInformationLCR CRITICALITY reject TYPE NeighbouringTDDCellMeasurementInformationLCR PRESENCE mandatory
},
...
}

CellItem-CM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION RESPONSE

```

```

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

CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID      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
    } |
    -- 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 ::= {
    { ID      id-MeasurementRecoverySupportIndicator  CRITICALITY ignore          EXTENSION MeasurementRecoverySupportIndicator  PRESENCE optional
    },
    -- UTRAN only
    ...
}

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
    cell                Cell-CM-Rsp,
    ...
}

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

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

/* partly omitted */
-- *****
--

```



```

-- COMMON MEASUREMENT REPORT
--
-- *****
CommonMeasurementReport ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{CommonMeasurementReport-IEs}},
  protocolExtensions  ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}  OPTIONAL,
  ...
}

CommonMeasurementReport-IEs RNSAP-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 },
  -- UTRAN only
  ...
}

CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  { ID      id-MeasurementRecoveryReportingIndicator  CRITICALITY ignore          EXTENSION  MeasurementRecoveryReportingIndicator  PRESENCE
  optional },
  -- UTRAN only
  ...
}

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
  cell                Cell-CM-Rprt,
  ...
}

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

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

```

/* partly omitted */

9.3.4 Information Element Definitions

/ partly omitted */*

-- M

/ partly omitted */*

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

/ partly omitted */*

9.3.6 Constant Definitions

/* partly omitted */

id-PrimaryCCPCH-RSCP-Delta	ProtocolIE-ID ::= 539
id-UEMeasurementType	ProtocolIE-ID ::= 540
id-UEMeasurementTimeslotInfoHCR	ProtocolIE-ID ::= 541
id-UEMeasurementTimeslotInfoLCR	ProtocolIE-ID ::= 542
id-UEMeasurementReportCharacteristics	ProtocolIE-ID ::= 543
id-UEMeasurementParameterModAllow	ProtocolIE-ID ::= 544
id-UEMeasurementValueInformation	ProtocolIE-ID ::= 545
<u>id-MeasurementRecoveryBehavior</u>	<u>ProtocolIE-ID ::= 554</u>
<u>id-MeasurementRecoveryReportingIndicator</u>	<u>ProtocolIE-ID ::= 555</u>
<u>id-MeasurementRecoverySupportIndicator</u>	<u>ProtocolIE-ID ::= 556</u>

END

/* partly omitted */

CHANGE REQUEST

⌘ **25.423** **CR** **972** ⌘ rev **-** ⌘ 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

Title:	⌘ Correction of HS-SICH reception quality		
Source:	⌘ RAN3		
Work item code:	⌘ TEI6	Date:	⌘ 05/05/2004
Category:	⌘ F	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2	(GSM Phase 2)
	A (corresponds to a correction in an earlier release)	R96	(Release 1996)
	B (addition of feature),	R97	(Release 1997)
	C (functional modification of feature)	R98	(Release 1998)
	D (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

Reason for change:	⌘ At RAN3#41 the CR 902 on TS25.423 was approved. The CR proposed to introduce ">" before ">HS-SICH reception quality" and ">>HS-SICH reception quality" in the tabular format of Measurement Threshold IE, chapter 9.2.1.39. This change was however missed during the CR implementation.
Summary of change:	⌘ It is proposed to introduce ">" before ">HS-SICH reception quality" and ">>HS-SICH reception quality" in Measurement Threshold IE.
Consequences if not approved:	⌘ If the CR is not approved the tabulat format of the <i>Measurement Threshold</i> IE is incorrect and not inline with the ASN.1.

Clauses affected:	⌘ 9.2.1.39										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table>	Y	N	⌘	X	⌘	X	⌘	X	Other core specifications	⌘
Y	N										
⌘	X										
⌘	X										
⌘	X										
		Test specifications									
		O&M Specifications									
Other comments:	⌘										

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under <ftp://ftp.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9.2.1.39 Measurement Threshold

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE <i>Measurement Threshold</i>					-	
> <i>SIR</i>					-	
>> <i>SIR</i>	M		INTEGER(0..63)	According to mapping in ref. [23] and [24].	-	
> <i>SIR Error</i>				FDD Only	-	
>> <i>SIR Error</i>	M		INTEGER(0..125)	According to mapping in [23]	-	
> <i>Transmitted Carrier Power</i>					-	
>> <i>Transmitted Code Power</i>	M		INTEGER(0..127)	According to mapping in ref. [23] and [24].	-	
> <i>RSCP</i>				TDD Only	-	
>> <i>RSCP</i>	M		INTEGER(0..127)	According to mapping in ref. [24]	-	
> <i>Rx Timing Deviation</i>				Applicable to 3.84Mcps TDD Only	-	
>> <i>Rx Timing Deviation</i>	M		INTEGER(0..8191)	According to mapping in [24]	-	
> <i>Round Trip Time</i>				FDD Only	-	
>> <i>Round Trip Time</i>	M		INTEGER(0..32767)	According to mapping in [23]	-	
> <i>Additional Measurement Thresholds</i>					-	
>> <i>T_{UTRAN-GPS} Measurement Threshold Information</i>					-	
>>> <i>T_{UTRAN-GPS} Measurement Threshold Information</i>	M		9.2.1.59C		YES	reject
>> <i>SFN-SFN Measurement Threshold Information</i>					-	
>>> <i>SFN-SFN Measurement Threshold Information</i>	M		9.2.1.52B		YES	reject
>> <i>Load</i>					-	
>>> <i>Load</i>	M		INTEGER(0..100)	0 is the minimum indicated load, and 100 is the maximum indicated load.	YES	reject
>> <i>Transmitted Carrier Power</i>					-	
>>> <i>Transmitted Carrier Power</i>	M		INTEGER(0..100)	According to mapping in [23] and [24].	YES	reject
>> <i>Received Total Wide Band Power</i>					-	
>>> <i>Received Total Wide Band Power</i>	M		INTEGER(0..621)	According to mapping in [23] and [24].	YES	reject
>> <i>UL Timeslot ISCP</i>				TDD Only	-	
>>> <i>UL Timeslot ISCP</i>	M		INTEGER(0..127)	According to mapping in [24]	YES	reject
>> <i>RT Load</i>					-	
>>> <i>RT Load</i>	M		INTEGER(0..100)		YES	reject
>> <i>NRT Load</i>					-	

<i>Information</i>						
>>>NRT Load Information	M		INTEGER(0..3)		YES	reject
>>Rx Timing Deviation LCR				Applicable to 1.28Mcps TDD Only		
>>>Rx Timing Deviation LCR	M		INTEGER(0..511)	According to mapping in [24]	YES	reject
>>HS-SICH reception quality				Applicable to TDD Only	–	
>>>HS-SICH reception quality	M		INTEGER (0..20)	According to mapping in [24]	YES	reject
>>UpPTS interference				1.28Mcps TDD Only	–	
>>>UpPTS interference Value	M		INTEGER (0..127,...)	According to mapping in [24]	YES	reject

CHANGE REQUEST

25.433 CR 997 # rev 1 # 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

Title:	#	Measurement Recovery Behavior for Common and Dedicated Measurement Procedures	
Source:	#	RAN3	
Work item code:	#	TEI6	Date: # 10/05/2004
Category:	#	C	Release: # Rel-6
		Use <u>one</u> of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

Reason for change:	#	Currently for Common or Dedicated Measurement Procedures an initiating CRNC is only informed when a measurement becomes temporarily unavailable. If the measurement becomes available again it is not possible for the reporting Node B to report this to the initiating CRNC. The situation is discussed in more detail in discussion paper Tdoc R3-031342.
Summary of change:	#	An additional IE is added to the COMMON/DEDICATED MEASUREMENT INITIATION REQUEST, COMMON/DEDICATED MEASUREMENT INITIATION RESPONSE and the COMMON/DEDICATED MEASUREMENT REPORT messages. The behavior description of the COMMON/DEDICATED MEASUREMENT INITIATION procedure and the COMMON/DEDICATED MEASUREMENT REPORTing procedure is adopted.
Consequences if not approved:	#	Information retrieval reporting not possible.

Clauses affected:	#	8.2.8.2, 8.2.9.2, 8.3.8.2, 8.3.9.2, 9.1.18, 9.1.19, 9.1.21, 9.1.52, 9.1.53, 9.1.55, 9.3.3, 9.3.4, 9.3.6 new: 9.2.1.xx, 9.2.1.yy, 9.2.1.zz								
Other specs affected:	#	<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>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table> Other core specifications # CR966 25.423 Rel-6 Test specifications O&M Specifications	Y	N	X			X		X
Y	N									
X										
	X									
	X									
Other comments:	#									

How to create CRs using this form:

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

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

8.2.8 Common Measurement Initiation

8.2.8.1 General

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

8.2.8.2 Successful Operation

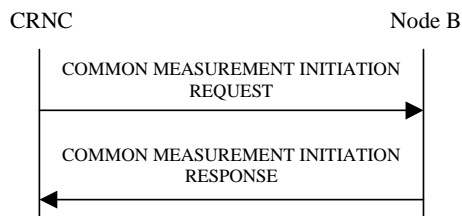


Figure 11: Common Measurement Initiation procedure, Successful Operation

/ partly omitted */*

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 F_n)

$a = 1/2^{(k/2)}$, 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.

Common measurement accuracy:

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

- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.2.9.2.

Response message:

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Measurement ID that was used in the measurement request. Only in the case where the *Report Characteristics* IE is set to "On Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall include the *Common Measurement Object Type* IE containing the measurement result and also 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 set to "SFN-SFN Observed Time Difference" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the COMMON MEASUREMENT INITIATION RESPONSE message. For all available measurement results, the Node B 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 Node B 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.

If the *Common Measurement Type* IE is set to "Received Total Wide Band Power for Cell Portion", "Transmitted Carrier Power for Cell Portion" or "Transmitted carrier power of all codes not used for HS-PDSCH or HS-SCCH transmission for Cell Portion" and the *Report Characteristics* IE is set to "On Demand", all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT INITIATION RESPONSE message.

8.2.8.3 Unsuccessful Operation

/ partly omitted */*

8.2.9 Common Measurement Reporting

8.2.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

8.2.9.2 Successful Operation

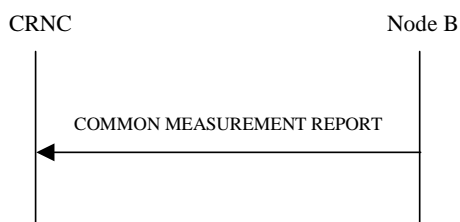


Figure 13: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Common Measurement Reporting procedure. The COMMON MEASUREMENT REPORT message shall use the Node B Control Port.

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

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) or the measurement is temporarily not available in case Measurement Recovery Behavior is supported, the *Common Measurement Value Information* IE shall indicate Measurement not Available. If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement (see ref. [22] and [23]) and include the Measurement Recovery Report Indicator IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.

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

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B 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.

For 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 measurements, all the available measurement results for each cell portion shall be included in the COMMON MEASUREMENT REPORT message.

8.2.9.3 Abnormal Conditions

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/ partly omitted */*

8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

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

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1 except when the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC".

If the *Node B Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION REQUEST message is set to the reserved value "All NBCC", the Dedicated Measurement Initiation procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

8.3.8.2 Successful Operation

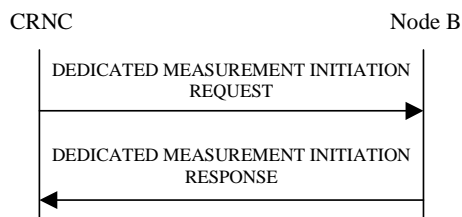


Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

/* partly omitted */

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

F_n is the updated filtered measurement result

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

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

$a = 1/2^{(k/2)}$, 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.

Measurement Recovery Behavior:

If the *Measurement Recovery Behavior* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall, if Measurement Recovery Behavior is supported, include the *Measurement Recovery Support Indicator* IE in the COMMON MEASUREMENT INITIATION RESPONSE message and perform the Measurement Recovery Behavior as described in subclause 8.3.9.2.

Response message

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the measurement request. The DEDICATED MEASUREMENT INITIATION RESPONSE message shall be sent even if the initiation is delayed for some Node B Communication Contexts due to an existing Prepared Reconfiguration or that the Reconfiguration CFN has not yet elapsed.

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

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

Interaction with Reset Procedure:

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

8.3.8.3 Unsuccessful Operation

/* partly omitted */

8.3.9 Dedicated Measurement Reporting

8.3.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Dedicated Measurement Initiation procedure. The Node B may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link, as long as the Node B Communication Context exists.

8.3.9.2 Successful Operation



Figure 40: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Dedicated Measurement Reporting procedure. The DEDICATED MEASUREMENT REPORT message shall use the Communication Control Port assigned to the Node B Communication Context. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the Node B may include measurement values for multiple objects in the DEDICATED MEASUREMENT REPORT message. 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 the CRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

[TDD – In the case that the measurement was performed on a particular HS-SICH, the Node B shall include the *HS-SICH ID* IE that indicates which HS-SICH was measured.]

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]) [or the measurement is temporarily not available in case Measurement Recovery Behavior is supported](#), the Measurement not available shall be reported. [If the Node B was configured to perform the Measurement Recovery Behavior, the Node B shall indicate Measurement Available to the CRNC when the achieved measurement accuracy again fulfils the given accuracy requirement \(see ref. \[22\] and \[23\]\) and include the Measurement Recovery Report Indicator IE in the COMMON MEASUREMENT REPORT message if the requested measurement reporting criteria are not met.](#)

8.3.9.3 Abnormal Conditions

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/* partly 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			
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.xx		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
<i>>Cell</i>					–	
<i>>>Common Measurement Value</i>	M		9.2.1.12		–	
<i>>RACH</i>				FDD only	–	
<i>>>Common Measurement Value</i>	M		9.2.1.12		–	
<i>>CPCH</i>				FDD only	–	
<i>>>Common Measurement Value</i>	M		9.2.1.12		–	
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.yy		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
> <i>Cell</i>					–	
>>Common Measurement Value Information	M		9.2.1.12A		–	
> <i>RACH</i>				FDD only	–	
>>Common Measurement Value Information	M		9.2.1.12A		–	
> <i>CPCH</i>				FDD only	–	
>>Common Measurement Value Information	M		9.2.1.12A		–	
SFN	O		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Measurement Recovery Reporting Indicator	O		9.2.1.zz		YES	ignore

/* partly omitted */

9.1.52 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used when the Report characteristics type is set to "On Demand".	YES	reject
Measurement ID	M		9.2.1.42		YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>	M				YES	reject
>RL					–	
>>RL Information		1..<maxno ofRLs>			EACH	reject
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>PUSCH Information		0..<maxno ofPUSCHs>		TDD only	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>HS-SICH Information		0..<maxno ofHSSICHs>		TDD only	GLOBAL	reject
>>>>HS-SICH ID	M		9.2.3.5Gb		–	
>RLS				FDD only	–	
>>RL Set Information		1..<maxno ofRLSets>			–	
>>>RL Set ID	M		9.2.2.39		–	
>ALL RL			NULL		–	
>ALL RLS			NULL	FDD only	–	
Dedicated Measurement Type	M		9.2.1.23		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject
CFN Reporting Indicator	M		FN Reporting Indicator 9.2.1.29B		YES	reject
CFN	O		9.2.1.7		YES	reject
Number Of Reported Cell Portions	C-BestCellPortionsMeasurement		9.2.2.23D	FDD only	YES	reject
Measurement Recovery Behavior	O		9.2.1.xx		YES	ignore

Condition	Explanation
BestCellPortionsMeas	The IE shall be present if the <i>Dedicated Measurement Type</i> IE is set to "Best Cell Portions".

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs a measurement can be started on
<i>maxnoofPUSCHs</i>	Maximum number of PUSCHs per RL a measurement can be started on
<i>maxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on
<i>maxnoofHSSICHs</i>	Maximum number of HSSICHs per RL a measurement can be started on

9.1.53 DEDICATED 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		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL				See Note 1	–	
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference	–	
>>>PUSCH Information		0..<maxno ofPUSCHs >		TDD only	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>HS-SICH ID	O		9.2.3.5Gb	TDD only	YES	reject
>RLS or ALL RLS				FDD only See Note 2	–	
>>RL Set Information		1..<maxno ofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>CFN	O		9.2.1.7	Dedicated Measurement Time Reference	–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore
Measurement Recovery Support Indicator	O		9.2.1.yy		YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs the measurement can be started on
<i>maxnoofPUSCHs</i>	Maximum number of PUSCHs per RL a measurement can be started on
<i>maxnoofRLSets</i>	Maximum number of individual RL Sets a 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.

9.1.54 DEDICATED 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		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
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

9.1.55 DEDICATED 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		–	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	M			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
<i>>RL or ALL RL</i>				See Note 1	–	
>>RL Information		<i>1..<maxno ofRLs></i>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5	TDD only	–	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		–	
>>>PUSCH Information		<i>0..<maxno ofPUSCHs ></i>		TDD only	GLOBAL	reject
>>>>PUSCH ID	M		9.2.3.12		–	
>>>HS-SICH ID	O		9.2.3.5Gb	TDD only	YES	reject
<i>>RLS or ALL RLS</i>				FDD only See Note 2	–	
>>RL Set Information		<i>1..<maxno ofRLSets></i>			EACH	ignore
>>>RL Set ID	M		9.2.2.39		–	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		–	
Measurement Recovery Reporting Indicator	O		9.2.1.zz		YES	ignore

Range Bound	Explanation
<i>maxnoofRLs</i>	Maximum number of individual RLs the measurement can be started on
<i>maxnoofPUSCHs</i>	Maximum number of PUSCHs per RL a measurement can be started on
<i>maxnoofRLSets</i>	Maximum number of individual RL Sets a 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.

/* partly omitted */

9.2.1.xx Measurement Recovery Behavior

This IE controls the Measurement Recovery Behavior.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>Measurement Recovery Behavior</u>			<u>NULL</u>	

9.2.1.yy Measurement Recovery Support Indicator

This IE indicates the Measurement Recovery Support.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>Measurement Recovery Support Indicator</u>			<u>NULL</u>	

9.2.1.zz Measurement Recovery Reporting Indicator

This IE indicates the Measurement Recovery Reporting.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>Measurement Recovery Reporting Indicator</u>			<u>NULL</u>	

/* partly omitted */

9.3.3 PDU Definitions

/* partly omitted */

LimitedPowerIncrease,
 Local-Cell-ID,
 MaximumDL-PowerCapability,
 Maximum-PDSCH-Power,
 MaximumTransmissionPower,
 Max-Number-of-PCPCHes,
 MaxNrOfUL-DPDCHs,
 MaxPRACH-MidambleShifts,
 MeasurementFilterCoefficient,
 MeasurementID,
[MeasurementRecoveryBehavior](#),
[MeasurementRecoveryReportingIndicator](#),
[MeasurementRecoverySupportIndicator](#),
 MidambleAllocationMode,
 MidambleShiftAndBurstType,
 MidambleShiftLCR,
 MinimumDL-PowerCapability,
 MinSpreadingFactor,
 MinUL-ChannelisationCodeLength,

/* partly omitted */

id-Local-Cell-InformationItem-ResourceStatusInd,
 id-Local-Cell-InformationItem2-ResourceStatusInd,
 id-Local-Cell-InformationList-AuditRsp,
 id-AdjustmentPeriod,
 id-MaxAdjustmentStep,
 id-MaximumTransmissionPower,
 id-MeasurementFilterCoefficient,
 id-MeasurementID,
[id-MeasurementRecoveryBehavior](#),
[id-MeasurementRecoveryReportingIndicator](#),
[id-MeasurementRecoverySupportIndicator](#),
 id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
 id-multipleRL-dl-DPCH-InformationList,
 id-multipleRL-dl-DPCH-InformationModifyList,
 id-multipleRL-ul-DPCH-InformationList,
 id-multipleRL-ul-DPCH-InformationModifyList,
 id-NCyclesPerSFNperiod,
 id-NeighbouringCellMeasurementInformation,
 id-NodeB-CommunicationContextID,

id-NRepetitionsPerCyclePeriod,
 id-NumberOfReportedCellPortions,
 id-P-CCPCH-Information,
 id-P-CPICH-Information,

/* partly omitted */

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

```
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,
    ...
}
```

```
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 ::= {
  ...
}

-- *****
--
-- 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,
    ...
}

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 ::= {
    ...
}

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

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

```

```

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          ProtocolIEContainer  {{CommonMeasurementReport-IEs}},
  protocolExtensions   ProtocolExtensionContainer  {{CommonMeasurementReport-Extensions}}          OPTIONAL,
  ...
}

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,
  ...
}

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 ::= {
    ...
}
```

/* partly omitted */

```
-- *****
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- *****
```

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

```
DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID CRITICALITY reject TYPE NodeB-CommunicationContextID PRESENCE mandatory } |
    { ID id-MeasurementID CRITICALITY reject TYPE MeasurementID PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY reject TYPE DedicatedMeasurementObjectType-DM-Rqst PRESENCE mandatory } |
    { ID id-DedicatedMeasurementType CRITICALITY reject TYPE DedicatedMeasurementType PRESENCE mandatory } |
    { ID id-MeasurementFilterCoefficient CRITICALITY reject TYPE MeasurementFilterCoefficient PRESENCE optional } |
    { ID id-ReportCharacteristics CRITICALITY reject TYPE ReportCharacteristics PRESENCE mandatory } |
    { ID id-CFNReportingIndicator CRITICALITY reject TYPE FNReportingIndicator PRESENCE mandatory } |
    { ID id-CFN CRITICALITY reject TYPE CFN PRESENCE optional } ,
    ...
}
```

```
DedicatedMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-NumberOfReportedCellPortions CRITICALITY reject EXTENSION NumberOfReportedCellPortions PRESENCE conditional } |
```

```

-- The IE shall be present if the Dedicated Measurement Type IE is set to "Best Cell Portions", FDD only.
{ ID id-MeasurementRecoveryBehavior CRITICALITY ignore EXTENSION MeasurementRecoveryBehavior PRESENCE optional
},
...
}

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
  rL RL-DM-Rqst,
  rLS RL-Set-DM-Rqst, -- for FDD only
  all-RL AllRL-DM-Rqst,
  all-RLS AllRL-Set-DM-Rqst, -- for FDD only
  ...
}

RL-DM-Rqst ::= SEQUENCE {
  rL-InformationList RL-InformationList-DM-Rqst,
  iE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

RLItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

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

RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-DM-Rqst CRITICALITY reject TYPE RL-InformationItem-DM-Rqst PRESENCE mandatory }
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
  rL-ID RL-ID,
  dPCH-ID DPCH-ID OPTIONAL, -- for TDD only
  iE-Extensions ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

RL-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  { ID id-PUSCH-Info-DM-Rqst CRITICALITY reject EXTENSION PUSCH-Info-DM-Rqst PRESENCE optional}|
  -- TDD only
  { ID id-HSSICH-Info-DM-Rqst CRITICALITY reject EXTENSION HSSICH-Info-DM-Rqst PRESENCE optional},
  -- TDD only
  ...
}

PUSCH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

HSSICH-Info-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfHSSICHs)) OF HS-SICH-ID

RL-Set-DM-Rqst ::= SEQUENCE {
  rL-Set-InformationList-DM-Rqst RL-Set-InformationList-DM-Rqst,
  iE-Extensions ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}

```

```

}

RL-SetItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst          ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rqst

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID          RL-Set-ID,
    iE-Extensions     ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-ExtIEs } } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rqst ::= NULL

AllRL-Set-DM-Rqst ::= NULL

-- *****
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- *****

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

DedicatedMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
    { ID id-MeasurementID                        CRITICALITY ignore TYPE MeasurementID                        PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rsp CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rsp PRESENCE optional } |
    { ID id-CriticalityDiagnostics               CRITICALITY ignore TYPE CriticalityDiagnostics               PRESENCE optional },
    ...
}

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

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rL          RL-DM-Rsp,
    rLS         RL-Set-DM-Rsp, -- for FDD only
    all-RL     RL-DM-Rsp,

```



```

    all-RLS                RL-Set-DM-Rsp, -- for FDD only
    ...
}

RL-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp    RL-InformationList-DM-Rsp,
    iE-Extensions                ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } }           OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp    CRITICALITY ignore    TYPE RL-InformationItem-DM-Rsp    PRESENCE mandatory }
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                        RL-ID,
    dPCH-ID                      DPCH-ID                OPTIONAL, -- for TDD only
    dedicatedMeasurementValue    DedicatedMeasurementValue,
    cFN                          CFN                OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { RL-InformationItem-DM-Rsp-ExtIEs } }           OPTIONAL,
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Info-DM-Rsp    CRITICALITY reject           EXTENSION    PUSCH-Info-DM-Rsp           PRESENCE optional}|
    -- TDD only
    {ID id-HSSICH-Info-DM-Rsp    CRITICALITY reject           EXTENSION    HS-SICH-ID           PRESENCE optional},
    -- TDD only
    ...
}

PUSCH-Info-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID

RL-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp    RL-Set-InformationList-DM-Rsp,
    iE-Extensions                ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }           OPTIONAL,
    ...
}

RL-SetItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rsp }}

RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp    CRITICALITY ignore    TYPE    RL-Set-InformationItem-DM-Rsp    PRESENCE mandatory}
}

```

}

```
RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID          RL-Set-ID,
    dedicatedMeasurementValue    DedicatedMeasurementValue,
    cFN                CFN                OPTIONAL,
    iE-Extensions      ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}
```

```
RL-Set-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- *****
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- *****
```

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

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

```
DedicatedMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
-- *****
--
-- DEDICATED MEASUREMENT REPORT
--
-- *****
```

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

```
DedicatedMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID          PRESENCE mandatory } |
    { ID id-MeasurementID                        CRITICALITY ignore          TYPE MeasurementID                      PRESENCE mandatory } |
}
```

```

    { ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory } ,
    ...
}

DedicatedMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-MeasurementRecoveryReportingIndicator CRITICALITY ignore EXTENSION MeasurementRecoveryReportingIndicator PRESENCE
optional
},
    ...
}

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rL RL-DM-Rprt,
    rLS RL-Set-DM-Rprt, -- for FDD only
    all-RL RL-DM-Rprt,
    all-RLS RL-Set-DM-Rprt, -- for FDD only
    ...
}

RL-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt RL-InformationList-DM-Rprt,
    iE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs } } OPTIONAL,
    ...
}

RLItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

RL-InformationItemIE-DM-Rprt NBAP-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, -- for TDD only
    dedicatedMeasurementValueInformation DedicatedMeasurementValueInformation,
    iE-Extensions ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs } } OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-Info-DM-Rprt CRITICALITY reject EXTENSION PUSCH-Info-DM-Rprt PRESENCE optional}|
    -- TDD only
    {ID id-HSSICH-Info-DM-Rprt CRITICALITY reject EXTENSION HS-SICH-ID PRESENCE optional},
    -- TDD only
    ...
}

PUSCH-Info-DM-Rprt ::= SEQUENCE (SIZE (0..maxNrOfPUSCHs)) OF PUSCH-ID

```

```

RL-Set-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt    RL-Set-InformationList-DM-Rprt,
    iE-Extensions                     ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs } }
    ...
}

RL-SetItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rprt }}

RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt PRESENCE mandatory }
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID                        RL-Set-ID,
    dedicatedMeasurementValueInformation    DedicatedMeasurementValueInformation,
    iE-Extensions                     ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs } } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

/* partly omitted */

9.3.4 Information Elements Definitions

/* partly omitted */

MeasurementID ::= INTEGER (0..1048575)

Measurement-Power-Offset ::= INTEGER(-12 .. 26)

-- Actual value = IE value * 0.5

MeasurementRecoveryBehavior ::= NULL

MeasurementRecoveryReportingIndicator ::= NULL

MeasurementRecoverySupportIndicator ::= NULL

```

MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID                ProtocolIE-ID,
        repetitionNumber     RepetitionNumber1    OPTIONAL,
        iE-Extensions         ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        ...
    }

```

}

/* partly omitted */

9.3.6 Constant Definitions

/* partly omitted */

id-SAT-Info-Almanac-ExtItem	ProtocolIE-ID ::= 609
id-HSDPA-Capability	ProtocolIE-ID ::= 610
id-HSDSCH-Resources-Information-AuditRsp	ProtocolIE-ID ::= 611
id-HSDSCH-Resources-Information-ResourceStatusInd	ProtocolIE-ID ::= 612
id-HSDSCH-MACdFlows-to-Add	ProtocolIE-ID ::= 613
id-HSDSCH-MACdFlows-to-Delete	ProtocolIE-ID ::= 614
id-HSDSCH-Information-to-Modify-Unsynchronised	ProtocolIE-ID ::= 615
id-TnlQos	ProtocolIE-ID ::= 616
id-Received-total-wide-band-power-For-CellPortion-Value	ProtocolIE-ID ::= 617
id-Transmitted-Carrier-Power-For-CellPortion	ProtocolIE-ID ::= 618
id-Transmitted-Carrier-Power-For-CellPortion-Value	ProtocolIE-ID ::= 619
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortion	ProtocolIE-ID ::= 620
id-TransmittedCarrierPowerOfAllCodesNotUsedForHS-PDSCHOrHS-SCCHTransmissionCellPortionValue	ProtocolIE-ID ::= 621
<u>id-MeasurementRecoveryBehavior</u>	<u>ProtocolIE-ID ::= 624</u>
<u>id-MeasurementRecoveryReportingIndicator</u>	<u>ProtocolIE-ID ::= 625</u>
<u>id-MeasurementRecoverySupportIndicator</u>	<u>ProtocolIE-ID ::= 626</u>

END

/* partly omitted */

CHANGE REQUEST

⌘ **25.453 CR 72** ⌘ 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

Title:	⌘ Correction to usage of INITIAL UE POSITION		
Source:	⌘ RAN3		
Work item code:	⌘ TEI6	Date:	⌘ 10/05/2004
Category:	⌘ F	Release:	⌘ Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

Reason for change:	⌘ At the last meeting CR69 "Initial UE Position IE only mandatory necessary for GPS" was agreed, but the added procedure text for the Position Calculation procedure doesn't reflect this behavior. Therefore a change in the procedure text is needed to indicate that the SAS shall use <i>Initial UE Position Estimate</i> IE when calculating the UE position with GPS based positioning methods and may use <i>Initial UE Position Estimate</i> IE in all other cases.
Summary of change:	⌘ Procedure text for the Position Calculation procedure is changed reflecting the above mentioned behavior.
Consequences if not approved:	⌘ If this CR is not approved, the <i>Initial UE Position Estimate</i> IE shall always be used when included in the POSITION CALCULATION REQUEST message even if it is not necessary or not applicable.

Clauses affected:	⌘ 9.1.3						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<input checked="" type="checkbox"/>	Test specifications					
	<input checked="" type="checkbox"/>	O&M Specifications					
Other comments:	⌘						

How to create CRs using this form:

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

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

8.2 Position Calculation

8.2.1 General

The purpose of the Position Calculation procedure is to enable an SRNC to query an SAS for a position estimate of a UE. The procedure uses connectionless signalling.

8.2.2 Successful Operation

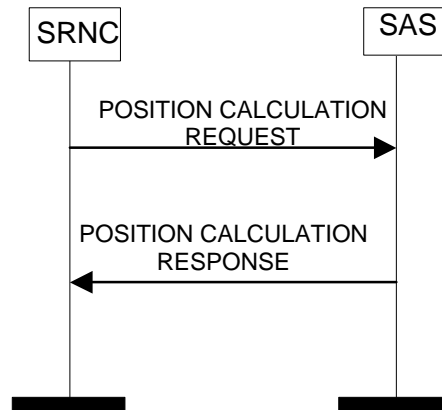


Figure 1: Position Calculation procedure, Successful Operation

The procedure is initiated with a POSITION CALCULATION REQUEST message sent from the SRNC to the SAS. When the SAS receives the POSITION CALCULATION REQUEST message, it shall calculate the UE position based on the provided measurement data.

If the *Initial UE Position Estimate* IE is included in the POSITION CALCULATION REQUEST message, the SAS shall use the **is** values for the calculation of the UE Position Estimate in case of A-GPS positioning methods are used. The SAS may use this value for the calculation of the UE Position when any other methods are used.

Response Message:

If the SAS was able to calculate the position estimate, it shall respond with a POSITION CALCULATION RESPONSE message.