

TSG RAN Meeting #20
Hämeenlinna, Finland, 3 - 6 June, 2003

RP-030222

Title CR (Rel-5) to TS 25.123
Source TSG RAN WG4
Agenda Item 7.4.5

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-020584	25.123	301	1	F	Rel-5	5.4.0	Correction of measurement and reporting capability requirements in CELL_DCH state in case of parallel measurements	TEI5

Paris, France 19 - 23 May, 2003

CR-Form-v7

CHANGE REQUEST⌘ **25.123 CR 301** ⌘ rev **1** ⌘ Current version: **5.4.0** ⌘For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.Proposed change affects: UICC apps ME Radio Access Network Core Network

Title:	⌘ Correction of measurement and reporting capability requirements in CELL_DCH state in case of parallel measurements		
Source:	⌘ RAN WG4		
Work item code:	⌘ TEI5 Date: ⌘ 27/05/2003		
Category:	⌘ F Release: ⌘ Rel-5		
	<table border="0"> <tr> <td style="vertical-align: top;"> <p>Use <u>one</u> of the following categories:</p> <p>F (correction)</p> <p>A (corresponds to a correction in an earlier release)</p> <p>B (addition of feature),</p> <p>C (functional modification of feature)</p> <p>D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p> </td> <td style="vertical-align: top;"> <p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p> </td> </tr> </table>	<p>Use <u>one</u> of the following categories:</p> <p>F (correction)</p> <p>A (corresponds to a correction in an earlier release)</p> <p>B (addition of feature),</p> <p>C (functional modification of feature)</p> <p>D (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>	<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p>
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Reason for change:	⌘ The formulation of the requirements in section 8.3 and 8.3A for support of event triggering and reporting criteria in CELL_DCH state leads to ambiguous interpretation when parallel measurements are ordered to the mobile. When looking to parallel measurements, it is also not clear how the reporting criteria shall be intended in section 8.3 and 8.3A.
	In section 8.2 and 8.2A some clarifications are needed about the concept of parallel physical measurements, which shall not be confused with the concept of parallel reporting criteria stated in section 8.3 and 8.3A.
Summary of change:	⌘ A clarification is added to sections 8.2, 8.2A, 8.3 and 8.3A about the performance requirements in case of parallel measurements. In section 8.2 and 8.2A it is clarified what is meant by parallel (physical) measurements. In section 8.3 and 8.3A it is clarified what is meant by parallel reporting criteria.
	Isolated Impact: would not affect implementation behaving like indicated in the CR, would affect implementations supported the corrected functionality otherwise.
Consequences if not approved:	⌘ The capability requirements for support of event triggering and reporting criteria in CELL_DCH state will be ambiguous.

Clauses affected:	⌘ 8.2, 8.2A, 8.3, 8.3A									
Other specs affected:	<table border="1"> <tr> <td>Y</td> <td>N</td> <td></td> </tr> <tr> <td></td> <td>X</td> <td>Other core specifications</td> </tr> <tr> <td></td> <td>X</td> <td>Test specifications</td> </tr> </table>	Y	N			X	Other core specifications		X	Test specifications
Y	N									
	X	Other core specifications								
	X	Test 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 Measurements in CELL_DCH State with special requirements (3.84 Mcps option)

8.2.1 Introduction

This section contains specific requirements for certain measurements beyond those specified in section 8.1. The measurements are defined in [14], the measurement model is defined in [15] and measurement accuracies are specified in section 9. [As long as the measurement configuration does not exceed the requirements stated in section 8.2.2, the UE shall meet the performance requirements defined in section 9.](#) Control of measurement reporting is specified in [16]. Idle intervals for the purpose of measurements are described in [14].

8.2.2 Requirements

~~The requirements in section 9 are applicable for a UE performing measurements according to this section.~~

The UE shall be able to perform [in parallel all physical layer](#) measurements according to table 8.2. [In this section one physical layer measurement corresponds to a measurement at the reference point B \(i.e. measurement reported by layer 1 after layer 1 filtering\) in the measurement model in \[15\].](#)

In addition to the requirements in table 8.2, a UE in CELL_DCH state shall also be able to measure and report the quantities according to section 8.1.

Table 8.2: Parallel [physical layer](#) measurement requirements

Measurement quantity	Number of parallel physical layer measurements possible to request from the UE	Note
Transport channel BLER	1 per Transport Channel	
UE transmitted power	1 per UL timeslot	
SFN-SFN observed time difference type 2	1	
UE GPS Timing of Cell Frames for UP	1	Only applicable for UE with this capability

8.2A Parallel Measurements in CELL_DCH State (1.28 Mcps option)

8.2A.1 Introduction

The purpose with this section is to ensure that all UE can handle a certain number of measurements in parallel. The measurements are defined in TS 25.225, the measurement model is defined in TS 25.302 and measurement accuracies are specified in section 9. [As long as the measurement configuration does not exceed the requirements stated in section 8.2.2, the UE shall meet the performance requirements defined in section 9.](#) Control of measurement reporting is specified in TS 25.331 and measurements reporting delays are specified in section 8.1A. For the description of the idle intervals see TS 25.225, Annex A.

8.2A.2 Requirements

~~The requirements in section 9 are applicable for a UE performing measurements according to this section.~~

The UE shall be able to perform [in parallel all physical layer](#) measurements according to table 8.2A. [In this section one physical layer measurement corresponds to a measurement at the reference point B \(i.e. measurement reported by layer 1 after layer 1 filtering\) in the measurement model in TS 25.302 \[15\].](#)

In addition to the requirements in table 8.2A the UE shall in parallel, in state CELL_DCH, also be able to measure and report the quantities according to section 8.1A.

Table 8.2A: Parallel physical layer measurement requirements

Measurement quantity	Number of parallel <u>physical layer</u> measurements possible to request from the UE
Transport channel BLER	1 per TrCh
UE transmitted power	1
SFN-SFN observed time difference type 2	∅
UE GPS Timing of Cell Frames for UP	∅

8.3 Capabilities for Support of Event Triggering and Reporting Criteria in CELL_DCH state (3.84 Mcps option)

8.3.1 Introduction

This section contains requirements on UE capabilities for support of event triggering and reporting criteria. As long as the measurement configuration does not exceed the requirements stated in section 8.3.2, the UE shall meet the performance requirements defined in section 9.

The UE can be requested to make measurements under different measurement ~~identity identities~~ numbers. Each Measurement Identity corresponds to either event based reporting, periodic reporting or no reporting. In case of event based reporting ~~With each Measurement Identity number there may be~~ is associated ~~multiple number of~~ with one or more events, each identified with an Event Identity. In case of periodic reporting, a Measurement Identity is associated with one periodic reporting criterion. In case of no reporting, a Measurement Identity is associated with one no reporting criterion.

The purpose of this section is to set some limits on the number of different event, periodic and no reporting criteria the UE may be requested to track in parallel.

8.3.2 Requirements

In this section a reporting criterion ~~a can be~~ corresponds to either one event (in the case of event based reporting), or one periodic ~~triggered~~ reporting criterion ~~a (in the case of or~~ periodic reporting) ~~criteria, or one no reporting criterion (in case of no reporting).~~ For event based reporting, each instance of event, with the same or different Event Identities, is counted as separate reporting criterion in Table 8.6.

The UE shall be able to support in parallel per category up to E_{cat} reporting criteria according to Table 8.6. The same type of events (e.g. events 1G) are counted as different events if either any of the parameters related to the events or their neighbour cell lists or both differ from each other.

For the measurement categories: Intra-frequency, Inter frequency and Inter-RAT the UE need not support more than 14 reporting criteria in total. For the measurement categories Traffic volume and Quality measurements the UE need not support more than 16 reporting criteria in total.

For the measurement category Intra-frequency the UE shall support at least 2 reporting criteria for event type 1G and at least 4 reporting criteria for an arbitrary combination of event types 1H and 1I.

Table 8.6: Requirements for reporting criteria per measurement category

Measurement category	E_{cat}	Note
Intra-frequency	6	Applicable for periodic reporting or TDD events (1G-1I).
Inter-frequency	6	Applicable for periodic reporting or Event 2A-2F
Inter-RAT	4	Only applicable for UE with this capability
UE internal measurements	8	
Traffic volume measurements	2 + (2 per Transport Channel)	
Quality measurements	2 per Transport Channel	
UP measurements	2	Only applicable for UE with this capability.

8.3A Capabilities for Support of Event Triggering and Reporting Criteria in CELL_DCH State (1.28 Mcps option)

8.3A.1 Introduction

This section contains requirements on UE capabilities for support of event triggering and reporting criteria. As long as the measurement configuration does not exceed the requirements stated in section 8.3A.2, the UE shall meet the performance requirements defined in section 9.

The UE can be requested to make measurements under different measurement identities ~~ies numbers~~. Each Measurement Identity corresponds to either event based reporting, periodic reporting or no reporting. In case of event based reporting, ~~With each Measurement Identity number there may be is~~ associated ~~multiple number of~~ with one or more events, each identified with an Event Identity. In case of periodic reporting, a Measurement Identity is associated with one periodic reporting criterion. In case of no reporting, a Measurement Identity is associated with one no reporting criterion.

The purpose of this section is to set some limits on the number of different event, periodic and no reporting criteria the UE may be requested to track in parallel.

8.3A.2 Requirements

In this section a reporting criterion ~~a can be~~ corresponds to either one event (in the case of event based reporting), or one periodic ~~triggered~~ reporting criterion ~~a (in case of or~~ periodic reporting ~~criteria~~), or one no reporting criterion (in case of no reporting). For event based reporting, each instance of event, with the same or different Event Identities, is counted as separate reporting criterion in Table 8.406A.

The UE shall be able to support in parallel per category up to E_{cat} reporting criteria according to Table 8.6A. The same type of events (e.g. events 1G) are counted as different events if either any of the parameters related to the events or their neighbour cell lists differ from each other.

For the measurement categories: Intra-frequency, Inter frequency and Inter-RAT the UE need not support more than 14 reporting criteria in total. For the measurement categories Traffic volume and Quality measurements the UE need not support more than 16 reporting criteria in total.

Table 8.6A: Requirements for reporting criteria per measurement category

Measurement category	E_{cat}	Note
Intra-frequency	4	Applicable for periodic reporting or TDD events (1G-4).
Inter-frequency	6	Applicable for periodic reporting or Event 2A-2F
Inter-RAT	4	Only applicable for UE with this capability
UE internal measurements	8	
Traffic volume measurements	2 + (2 per Transport Channel)	
Quality measurements	2 per Transport Channel	
UP measurements	2	Only applicable for UE with this capability.