

**TSG-RAN Meeting #11  
Palm Springs, CA, U.S.A., 13-16 March 2001**

**RP-010061**

**Title: Agreed CRs to TS 25.215**

**Source: TSG-RAN WG1**

**Agenda item: 5.1.3**

No.	R1 T-doc	Spec	CR	Rev	Subject	Cat	V_old	V_new
1	R1-01-0107	25.215	079	2	Correction of the observed time difference to GSM measurement	F	3.5.0	3.6.0
2	R1-01-0071	25.215	081	-	Removal of UE SIR measurement	F	3.5.0	3.6.0
3	R1-01-0340	25.215	082	1	Correction of GSM reference	F	3.5.0	3.6.0
4	R1-01-0294	25.215	083	-	Correction of GPS Timing measurement	F	3.5.0	3.6.0
5	R1-01-0419	25.215	086	-	Correction on transport channel BLER	F	3.5.0	3.6.0

## CHANGE REQUEST

⌘ **25.215 CR 079** ⌘ rev **2** ⌘ Current version: **3.5.0** ⌘

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**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction of the observed time difference to GSM measurement		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘	<b>Date:</b>	⌘ 15-jan-2001
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
Use <u>one</u> of the following categories: <b>F</b> (essential correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (Addition of feature), <b>C</b> (Functional modification of feature) <b>D</b> (Editorial modification) Detailed explanations of the above categories can be found in 3GPP 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)	

<b>Reason for change:</b>	⌘ The current measurement definition describes the reporting, not the actual measurement, and therefore has the following problems:  The P-CCPCH frame with SFN=0 occurs very seldom, only every 40.96 s. If the actual measurement would be based on this instant, the accuracy would suffer. The sentence "...shall reflect the situation..." is ambiguous.  For the GSM multiframe timing measurement with the required precision, the SCH is used, not the FCCH. Depending on the instant when the measurement is done, the next received SCH shall be used, even if it is not at the start of the GSM multiframe. In connected mode, the SCH measurement occasions depend on the transmission gap pattern sequence given by the network.		
<b>Summary of change:</b>	⌘ The relationship between actual measurement and reported value is added.		
<b>Consequences if not approved:</b>	⌘ "Observed time difference to GSM" will not be usable, as implementations might differ considerably.		

<b>Clauses affected:</b>	⌘ 5.1.12		
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘		

## 5.1.12 Observed time difference to GSM cell

<b>Definition</b>	<p>The Observed time difference to GSM cell is defined as: <math>T_{RxGSMj} - T_{RxSFNi}</math>, where:  <math>T_{RxSFNi}</math> is the time at the beginning of the P-CCPCH frame with SFN=0 from cell i.  <math>T_{RxGSMj}</math> is the time at the beginning of the GSM BCCH 51-multiframe from GSM frequency j received closest in time after the time <math>T_{RxSFNi}</math>. If the next GSM multiframe is received exactly at <math>T_{RxSFNi}</math> then <math>T_{RxGSMj} = T_{RxSFNi}</math> (which leads to <math>T_{RxGSMj} - T_{RxSFNi} = 0</math>). <del>The timing measurement shall reflect the timing situation when the most recent (in time) P-CCPCH with SFN=0 was received in the UE.</del> The reference point for the Observed time difference to GSM cell shall be the antenna connector of the UE.</p> <p>The beginning of the GSM BCCH 51-multiframe is defined as the beginning of the first tail bit of the frequency correction burst in the first TDMA-frame of the GSM BCCH 51-multiframe, i.e. the TDMA-frame following the IDLE-frame.</p> <p><u>The reported time difference is calculated from the actual measurement in the UE. The actual measurement shall be based on:</u></p> <p><u><math>T_{MeasGSM,j}</math>: The start of the first tail bit of the most recently received GSM SCH on frequency j</u>  <u><math>T_{MeasSFN,i}</math>: The start of the last P-CCPCH frame received on frequency i before receiving the GSM SCH on frequency j</u></p> <p><u>For calculating the reported time difference, the frame lengths are always assumed to be 10 ms for UTRA and (60/13) ms for GSM.</u></p>
<b>Applicable for</b>	Idle, Connected Inter

## CHANGE REQUEST

⌘ **TS 25.215 CR 081** ⌘ rev **-** ⌘ Current version: **3.5.0** ⌘

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**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Removal of UE SIR measurement		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘	<b>Date:</b>	⌘ 2001-01-12
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
	Use <u>one</u> of the following categories: <b>F</b> (essential correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (Addition of feature), <b>C</b> (Functional modification of feature) <b>D</b> (Editorial modification) Detailed explanations of the above categories can be found in 3GPP 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)

<b>Reason for change:</b>	⌘ SIR measurement by UE is a physical layer internal measurement, and is not reported by UE to UTRAN in any RRC message (TS 25.331). No performance requirements on SIR measurement are specified in TS 25.113. Therefore, this measurement is proposed to be removed for FDD in R99.
<b>Summary of change:</b>	⌘ Remove UE SIR measurement.
<b>Consequences if not approved:</b>	⌘ Inconsistency of the specifications.

<b>Clauses affected:</b>	⌘ 5.1.3		
<b>Other specs affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘		

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

Comprehensive information and tips about how to create CRs can be found at: [http://www.3gpp.org/3G\\_Specs/CRs.htm](http://www.3gpp.org/3G_Specs/CRs.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://www.3gpp.org/specs/>. For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

### 5.1.3 SIR

<p><b>Definition</b></p>	<p>Signal to Interference Ratio, defined as: <math>(RSCP/ISCP) \times (SF/2)</math>. The SIR shall be measured on DPCH after RL combination. The reference point for the SIR shall be the antenna connector of the UE.                  where:                  RSCP = Received Signal Code Power, the received power on one code measured on the pilot bits.                  ISCP = Interference Signal Code Power, the interference on the received signal measured on the pilot bits. Only the non-orthogonal part of the interference is included in the measurement.                  SF=The spreading factor used.</p>
<p><b>Applicable for</b></p>	<p>Connected Intra</p>

CR-Form-v3

## CHANGE REQUEST

⌘ **25.215** **CR 082** ⌘ rev **1** ⌘ Current version: **3.5.0** ⌘

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**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction of GSM reference		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘	<b>Date:</b>	⌘ 28th, February, 2001
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
	Use <u>one</u> of the following categories: <b>F</b> (essential correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (Addition of feature), <b>C</b> (Functional modification of feature) <b>D</b> (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> of the following releases: <b>2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>REL-4</b> (Release 4) <b>REL-5</b> (Release 5)

<b>Reason for change:</b>	⌘ The reference document, GSM 03.03, does not exist in Release 99 specification. The contents are moved to TS 23.003 in Release 99 specification. The basic principle of reference is the same version (release 99) of the specification. To refer TS25.133 is better because this specification describes Initial BSIC identification and BSIC re-confirmation.
<b>Summary of change:</b>	⌘ The reference document is changed to TS25.133.
<b>Consequences if not approved:</b>	⌘ The document that does not exist in Release 99 is referred.

<b>Clauses affected:</b>	⌘ 2		
<b>Other specs affected:</b>	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘		

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

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## 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

- [1] 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".
- [2] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".
- [3] 3GPP TS 25.213: "Spreading and modulation (FDD)".
- [4] 3GPP TS 25.214: "Physical layer procedures (FDD)".
- [5] 3GPP TS 25.215: "Physical layer - Measurements (FDD)".
- [6] 3GPP TS 25.221: "Physical channels and mapping of transport channels onto physical channels (TDD)".
- [7] 3GPP TS 25.222: "Multiplexing and channel coding (TDD)".
- [8] 3GPP TS 25.223: "Spreading and modulation (TDD)".
- [9] 3GPP TS 25.224: "Physical layer procedures (TDD)".
- [10] 3GPP TS 25.301: "Radio Interface Protocol Architecture".
- [11] 3GPP TS 25.302: "Services provided by the Physical layer".
- [12] 3GPP TS 25.303: "UE functions and interlayer procedures in connected mode".
- [13] 3GPP TS 25.304: "UE procedures in idle mode".
- [14] 3GPP TS 25.331: "RRC Protocol Specification".
- [15] 3GPP TR 25.922: "Radio Resource Management Strategies".
- [16] 3GPP TR 25.923: "Report on Location Services (LCS)".
- [17] 3GPP TR 25.401: "UTRAN Overall Description".
- [18] [3GPP TS 25.101](#): "["UE Radio transmission and Reception \(FDD\)"](#)".
- [19] [3GPP TS 25.104](#): "["UTRA \(BS\) FDD; Radio transmission and Reception"](#)".
- [20] [3GPP TS 25.133](#): "["Requirements for Support of Radio Resource Management \(FDD\)"](#)". [GSM 03.03: "Digital cellular telecommunications system \(Phase 2+\); Numbering, adding and identification"](#)".

CR-Form-v3

## CHANGE REQUEST

⌘ **25.215 CR 083** ⌘ rev **-** ⌘ Current version: **3.5.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction of GPS Timing measurement		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘	<b>Date:</b>	⌘ 2001-02-23
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
Use <u>one</u> of the following categories: <b>F</b> (essential correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (Addition of feature), <b>C</b> (Functional modification of feature) <b>D</b> (Editorial modification) Detailed explanations of the above categories can be found in 3GPP 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)	

<b>Reason for change:</b>	⌘ The field "applicable for" is not applicable for UTRAN measurements. Obviously a copy&paste error from the corresponding UE measurement brought that field into the GSM Timing measurement description.
<b>Summary of change:</b>	⌘ The field "applicable for" is removed.
<b>Consequences if not approved:</b>	⌘ The description of UTRAN GPS Timing measurement is ambiguous.

<b>Clauses affected:</b>	⌘ 5.2.9		
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘ As the removal of a row is not shown by Word with change marks, the CR only shows the removal of the text in the bottom row. When implementing the CR into the specification, the bottom row should also be removed.		

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

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## 5.2.9 UTRAN GPS Timing of Cell Frames for LCS

<b>Definition</b>	$T_{\text{UTRAN-GPS}_j}$ is defined as the time of the occurrence of a specified UTRAN event according to GPS Time Of Week. The specified UTRAN event is the beginning of the transmission of a particular frame in cell $j$ (identified through its SFN), where cell $j$ is a cell within the active set. The reference point for $T_{\text{UTRAN-GPS}_j}$ shall be the Tx antenna connector.
<b>Applicable for</b>	Connected-Intra, Connected-Inter

## CHANGE REQUEST

⌘ **TS 25.215 CR 086** ⌘ rev **-** ⌘ Current version: **3.5.0** ⌘

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

**Proposed change affects:** ⌘ (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	⌘ Correction on transport channel BLER		
<b>Source:</b>	⌘ TSG RAN WG1		
<b>Work item code:</b>	⌘	<b>Date:</b>	⌘ 2001-03-01
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R99
	Use <u>one</u> of the following categories: <b>F</b> (essential correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (Addition of feature), <b>C</b> (Functional modification of feature) <b>D</b> (Editorial modification)		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)
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.		

<b>Reason for change:</b>	⌘ The current description of transport channel BLER has an ambiguity in case of blind transport format detection i.e. no TFCI used. If there is a transport channel, which includes a transport format with zero transport blocks, this transport channel should be excluded from the measurement of transport channel BLER because no CRC is attached on the zero transport blocks.
<b>Summary of change:</b>	⌘ It is clarified that the transport channel BLER in case of blind transport format detection i.e. no TFCI used. A transport channel, which includes a transport format with zero transport blocks, will be excluded from the measurement of transport channel BLER.
<b>Consequences if not approved:</b>	⌘ Incorrect transport channel BLER will be measured in case of blind transport format detection i.e. no TFCI used.

<b>Clauses affected:</b>	⌘ 5.1.7		
<b>Other specs Affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
<b>Other comments:</b>	⌘		

### 5.1.3 SIR

<b>Definition</b>	Signal to Interference Ratio, defined as: $(RSCP/ISCP) \times (SF/2)$ . The SIR shall be measured on DPCCH after RL combination. The reference point for the SIR shall be the antenna connector of the UE. where: RSCP = Received Signal Code Power, the received power on one code measured on the pilot bits. ISCP = Interference Signal Code Power, the interference on the received signal measured on the pilot bits. Only the non-orthogonal part of the interference is included in the measurement. SF=The spreading factor used.
<b>Applicable for</b>	Connected Intra

### 5.1.4 UTRA carrier RSSI

<b>Definition</b>	Received Signal Strength Indicator, the wide-band received power within the relevant channel bandwidth. Measurement shall be performed on a UTRAN downlink carrier. The reference point for the RSSI shall be the antenna connector of the UE.
<b>Applicable for</b>	Idle, Connected Intra, Connected Inter

### 5.1.5 GSM carrier RSSI

<b>Definition</b>	Received Signal Strength Indicator, the wide-band received power within the relevant channel bandwidth. Measurement shall be performed on a GSM BCCH carrier. The reference point for the RSSI shall be the antenna connector of the UE.
<b>Applicable for</b>	Idle, Connected Inter

### 5.1.6 CPICH Ec/No

<b>Definition</b>	The received energy per chip divided by the power density in the band. The Ec/No is identical to RSCP/RSSI. Measurement shall be performed on the Primary CPICH. The reference point for the CPICH Ec/No shall be the antenna connector of the UE. If Tx diversity is applied on the Primary CPICH the received energy per chip (Ec) from each antenna shall be separately measured and summed together in [Ws] to a total received chip energy per chip on the Primary CPICH, before calculating the Ec/No.
<b>Applicable for</b>	Idle, Connected Intra, Connected Inter

### 5.1.7 Transport channel BLER

<b>Definition</b>	Estimation of the transport channel block error rate (BLER). The BLER estimation shall be based on evaluating the CRC on each transport block after RL combination. BLER estimation is only required for transport channels <b>using containing CRC</b> . <b>In case of no TFCl is used all transport formats of a transport channel shall use CRC to enable BLER estimation for this transport channel</b> . In connected mode the BLER shall be possible to measure on any transport channel. If requested in idle mode it shall be possible to measure the BLER on transport channel PCH.
<b>Applicable for</b>	Idle, Connected Intra