TSG-RAN Working Group 1 meeting #9 ***TSGR1#9(99)L50***
Dresden, Germany
November 30 – December 3, 1999

Agenda item:

Title: CR 25.215-017r1: CPICH SIR measurements.

Source: Telia AB

Document for: Decision

Background

According to the latest versions of the RAN-2 specifications TS 25.302 and TS 25.331, it shall be possible to measure the SIR on the CPICH. In this CR, it is proposed to update TS 25.215 accordingly.

Revision history

The CR has been updated according to the decisions taken for SIR measurements on the dedicated channels (R1-99-L10, CR 25.215-009r2).

3GPP TSG RAN WG1 Meeting #9
Dresden, Germany, Nov 30 – Dec 3, 1999

Document R1#9(99)l50
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.215	CR	017r1	Current Version:	3.0.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: Telia AB **Date:** 1999-11-30

Subject: CPICH SIR measurement

Work item:

Category: *(only one category shall be marked with an X)*			**Release:**	
F	Correction	X	Phase 2	
A	Corresponds to a correction in an earlier release		Release 96	
B	Addition of feature		Release 97	
C	Functional modification of feature		Release 98	
D	Editorial modification		Release 99	X
			Release 00	

Reason for change: The possibility to measure SIR on the CPICH is included in the RAN WG2 specifications TS 25.302 and TS 25.331. Hence, it is proposed to update TS 25.215 accordingly.

Clauses affected: 5.1, 5.1.4

Other specs affected:			
Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

5.1 UE measurement abilities

The structure of the table defining a UE measurement quantity is shown below:

Column field	**Comment**
Definition	Contains the definition of the measurement.
Applicable for	States if a measurement shall be possible to perform in Idle mode and/or Connected mode. For connected mode also information of the possibility to perform the measurement on intra-frequency and/or inter-frequency are given. The following terms are used in the tables: Idle = Shall be possible to perform in idle mode Connected Intra = Shall be possible to perform in connected mode on an intra-frequency Connected Inter = Shall be possible to perform in connected mode on an inter-frequency
Range/mapping	Gives the range and mapping to bits for the measurements quantity.

5.1.1 CPICH RSCP

Definition	Received Signal Code Power, the received power on one code after de-spreading measured on the pilot bits of the CPICH. The reference point for the RSCP is the antenna connector at the UE.
Applicable for	Idle, Connected Intra, Connected Inter
Range/mapping	

5.1.2 RSCP

Definition	Received Signal Code Power, the received power on one code after de-spreading measured on the pilot bits of the DPCCH after RL combination. The reference point for the RSCP is the antenna connector at the UE.
Applicable for	Connected Intra
Range/mapping	

5.1.3 ISCP

Note that it is not a requirement that the ISCP shall be possible to report to higher layers. The ISCP is defined in this section because it is included in the definition of SIR.

Definition	Interference Signal Code Power, the interference on the received signal after de-spreading. Only the non-orthogonal part of the interference is included in the measurement. The reference point for the ISCP is the antenna connector at the UE.

5.1.4 CPICH SIR

Definition	Signal to Interference Ratio, defined as: (RSCP/ISCP)×(SF/2). The SIR shall be measured on CPICH pilot bits. The reference point for the SIR is 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 on the CPICH.
Applicable for	Idle, Connected Intra, Connected Inter
Range/mapping	CPICH SIR is given with a resolution of 0.5 dB with the range [-11, ..., 20] dB. CPICH SIR shall be reported in the unit UE_CPICH_SIR where: UE_CPICH_SIR_00: CPICH SIR < –11.0 dB UE_CPICH_SIR_01: -11.0 dB ≤ CPICH SIR < –10.5 dB UE_CPICH_SIR_02: -10.5 dB ≤ CPICH SIR < –10.0 dB ... UE_CPICH_SIR_61: 19.0 dB ≤ CPICH SIR < 19.5 dB UE_CPICH_SIR_62: 19.5 dB ≤ CPICH SIR < 20.0 dB UE_CPICH_SIR_63: 20.0 dB ≤ CPICH SIR

5.1.45 SIR

Definition	Signal to Interference Ratio, defined as the RSCP divided by ISCP. The SIR shall be measured on DPCCH after RL combination. The reference point for the SIR is the antenna connector of the UE.
Applicable for	Connected Intra
Range/mapping	