

**TSG-RAN Working Group 1 meeting #19
Las Vegas, U.S.A., 27.2-2.3, 2001**

TSGR1#19(01)0403

Agenda Item: REL-4 CRs
Source: Nokia and Samsung
Title: Introducing gated DPCCH transmission scheme effects on TS 25.215
Document for: Approval

This paper introduces the CR to TS 25.215 which is in-line with TR 25.840, Terminal Power Saving Features v2.1.0.

CHANGE REQUEST

✎ 25.215 CR 084 ✎ 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

Title:	✎ Gated DPCCH transmission schemes effect to TS 25.215		
Source:	✎ Nokia and Samsung		
Work item code:	✎ RinImp-TPS	Date:	✎ 02.03.2001
Category:	✎ B	Release:	✎ REL-4
Use <u>one</u> of the following categories: F (essential 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)	

Reason for change:	✎ This CR describes the changes needed in TS 25.215 in order to include gated DPCCH transmission in REL-4 specification.
Summary of change:	✎ The CR introduces small changes to UTRAN measurements part by introducing gated DPCCH transmission definition.
Consequences if not approved:	✎ Some UTRAN measurements can not be performed properly when gated DPCCH transmission is used.

Clauses affected:	✎ 5.2.2 and 5.2.3
Other specs affected:	✎ <input type="checkbox"/> Other core specifications ✎ <input type="checkbox"/> Test specifications ✎ <input 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/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.

5.2.2 SIR

Definition	<p>Signal to Interference Ratio, is defined as: $(RSCP/ISCP)/SF$. Measurement shall be performed on the DPCCH of a Radio Link Set. In compressed mode the SIR shall not be measured in the transmission gap. <u>During gated DPCCH transmission the SIR shall not be measured during switch off timeslots.</u> The reference point for the SIR measurements shall be the Rx antenna connector.</p> <p>where:</p> <p>RSCP = Received Signal Code Power, unbiased measurement of the received power on one code.</p> <p>ISCP = Interference Signal Code Power, the interference on the received signal.</p> <p>SF=The spreading factor used on the DPCCH.</p>
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5.2.3 SIR_{error}

Definition	<p>$SIR_{error} = SIR - SIR_{target_ave}$, where:</p> <p>SIR = the SIR measured by UTRAN, defined in section 5.2, given in dB.</p> <p>SIR_{target_ave} = the SIR_{target} averaged over the same time period as the SIR used in the SIR_{error} calculation. In compressed mode $SIR_{target} = SIR_{cm_target}$ shall be used when calculating SIR_{target_ave}. In compressed mode the SIR_{target_ave} shall not be calculated over the transmission gap. <u>During gated DPCCH transmission the SIR_{target_ave} shall not be measured during switch off timeslots.</u> The averaging of SIR_{target} shall be made in a linear scale and SIR_{target_ave} shall be given in dB.</p>
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5.2.4 Transmitted carrier power

Definition	<p>Transmitted carrier power, is the ratio between the total transmitted power and the maximum transmission power. Total transmission power is the mean power [W] on one carrier from one UTRAN access point. Maximum transmission power is the mean power [W] on one carrier from one UTRAN access point when transmitting at the configured maximum power for the cell. Measurement shall be possible on any carrier transmitted from the UTRAN access point. The reference point for the transmitted carrier power measurement shall be the Tx antenna connector. In case of Tx diversity the transmitted carrier power for each branch shall be measured and the maximum of the two values shall be reported to higher layers, i.e. only one value will be reported to higher layers.</p>
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5.2.5 Transmitted code power

Definition	<p>Transmitted code power, is the transmitted power on one channelisation code on one given scrambling code on one given carrier. Measurement shall be possible on the DPCCH-field of any dedicated radio link transmitted from the UTRAN access point and shall reflect the power on the pilot bits of the DPCCH-field. When measuring the transmitted code power in compressed mode all slots shall be included in the measurement, e.g. also the slots in the transmission gap shall be included in the measurement. The reference point for the transmitted code power measurement shall be the Tx antenna connector. In case of Tx diversity the transmitted code power for each branch shall be measured and summed together in [W].</p>
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5.2.6 Transport channel BER

Definition	The transport channel BER is an estimation of the average bit error rate (BER) of the DPDCH data of a Radio Link Set. The transport channel (TrCH) BER is measured from the data considering only non-punctured bits at the input of the channel decoder in Node B. It shall be possible to report an estimate of the transport channel BER for a TrCH after the end of each TTI of the TrCH. The reported TrCH BER shall be an estimate of the BER during the latest TTI for that TrCH. Transport channel BER is only required to be reported for TrCHs that are channel coded.
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