

TSG-RAN Meeting #20
Hämeenlinna, Finland, 03-06 June 2003

RP-030299

Title: CR (Rel-5) to TS 25.302

Source: TSG-RAN WG2

Agenda item: 7.2.4

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.302	138	-	Rel-5	Measurements on HS-SICH for UTRA TDD	F	5.4.0	5.5.0	R2-031381	HSDPA-L23

NOTE: 25.302 CR 139 Rel-5 (Power Measurement in non HSDPA codes) is available in RP-030278, being presented in the RAN1 agenda item (linked with CRs on 25.123, TS 25.225, TS 25.302 and TS 25.433).

CHANGE REQUEST

25.302 CR 138 # rev - # 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:	# Measurements on HS-SICH for UTRA TDD		
Source:	# InterDigital		
Work item code:	# HSDPA-L23	Date:	# 19 May 2003
Category:	# F	Release:	# Rel-5
	<i>Use one of the following categories:</i> 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 .		<i>Use one of the following releases:</i> 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:	# Based on changes in 25.225 approved by RAN1#31 (R1-030304), there is an introduction of "HS-SICH reception quality measurement for UTRA TDD." To be consistent with the specification, "9.3.24 HS-SICH reception quality" is introduced in subclause 9.3 UTRAN Measurements.
Summary of change:	# Subclause 9.3.9 and 9.3.24 Introduction of "HS-SICH reception quality."
Consequences if not approved:	# RRM will have no information on performance of the UL HSDPA control channel performance. Inconsistent specification with 25.225.

Clauses affected:	# 9.3.9; 9.3.24											
Other specs affected:	#	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	#
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		Test specifications	#									
		O&M Specifications	#									
Other comments:	# -											

9.3 UTRAN Measurements

9.3.1 Received total wide band power

Measurement	Received total wide band power
Source	L1 (Node B)
Destination	RRC(RNC)
Reporting Trigger	On-demand, Event-triggered, Periodic
Description	The received wide band power including noise generated in the receiver, within the bandwidth defined by the pulse shaping filter. For TDD mode, this is measured in specified timeslots.

9.3.2 Transmitted carrier power

Measurement	Transmitted carrier power
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, periodic, Event-triggered
Description	Transmitted carrier power is the ratio between the total transmitted power on one DL carrier from one UTRAN access point, compared to the maximum power possible to use on that DL carrier at this moment of time. For TDD mode, this is measured in specified timeslots.

9.3.3 Transmitted code power

Measurement	Transmitted code power
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, periodic, Event-triggered
Description	Transmitted Code Power is the transmitted power on one carrier, one scrambling and one channelisation code. For TDD mode, this is measured in specified timeslots.

9.3.4 Void

9.3.5 Physical channel BER

Measurement	Physical channel BER
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, Event-triggered, periodic
Description	The Physical channel BER is an estimation of the average bit error rate (BER) on the DPCH of a Radio Link Set. This measurement applies to FDD mode only.

9.3.6 Transport channel BER

Measurement	Transport channel BER
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, Event-triggered, periodic
Description	The transport channel BER is an estimation of the average bit error rate (BER) data part.

9.3.7 RX timing deviation

Measurement	RX timing deviation
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Description	The difference of the time of arrival of the UL transmissions in relation to the arrival time of a signal with zero propagation delay. This measurement is applicable for TDD mode.

9.3.8 Timeslot ISCP

Measurement	Timeslot ISCP
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	periodic or event triggered
Description	Interference on Signal Code Power, is the interference on the received signal in a specified timeslot. This measurement is applicable is applicable to TDD mode only.

9.3.9 RSCP

Measurement	RSCP
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	periodic or event triggered
Description	Received Signal Code Power is the received power on DPCH or PRACH or PUSCH <u>or HS-SICH</u> . This measurement is applicable for TDD mode only.

9.3.10 Round Trip Time

Measurement	Round Trip Time
Source	L1(Node B or LMU)
Destination	RRC (RNC-UE positioning)
Reporting Trigger	on demand, event triggered
Description	This is an estimate of the round trip time of signals between the Node B and the UE This measurement is applicable for FDD mode only.

9.3.11 Void

9.3.12 Acknowledged PRACH preambles

Measurement	Acknowledged PRACH preambles
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered, On demand
Description	This measurement indicates the number of positive acquisition indicators transmitted per access frame on each AICH. This measurement is applicable for FDD mode only.

9.3.13 Detected PCPCH access preambles

Measurement	Detected PCPCH Access preambles
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered, On demand
Description	This measurement indicates the total number of detected access preambles per access frame on the PCPCHs belonging to a CPCH set. This measurement is applicable for FDD mode only.

9.3.14 Acknowledged PCPCH access preambles

Measurement	Acknowledged PCPCH access preambles
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered, On demand
Description	This measurement indicates the total number of acknowledged PCPCH access preambles per access frame on the PCPCHs. where an access frame consists of fifteen access slots from access slot #0 to access slot #14. This measurement is applicable for FDD mode only.

9.3.15 SIR

Measurement	SIR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Description	Signal to Interference Ratio.

9.3.16 PRACH/PCPCH Propagation Delay

Measurement	Propagation delay
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Event triggered, periodic
Description	The one-way propagation delay as measured during either PRACH or PCPCH access. This measurement is applicable for FDD mode only.

9.3.17 UTRAN GPS Timing of Cell Frames for UE positioning

Measurement	UTRAN GPS Timing of Cell Frames for UE positioning
Source	L1 (LMU)
Destination	RRC (RNC-UE positioning)
Reporting Trigger	On-demand, Event-triggered, Periodic
Description	This is the absolute time reference measurement in respect to GPS Time Of Week for the transmission of a particular frame.

9.3.18 SIR ERROR

Measurement	SIR ERROR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Description	Signal to Interference Ratio Error This measurement is applicable for FDD cells only.

9.3.19 Received SYNC_UL Timing Deviation

Measurement	Received SYNC_UL Timing Deviation
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	Event triggered
Definition	'Received SYNC_UL Timing Deviation' is the time difference $UpPCH_{POS} = UpPTS_{R_{path}} - UpPTS_{TS}$ Where $UpPTS_{R_{path}}$: time of the reception in the Node B of the SYNC_UL to be used in the uplink synchronization process $UpPTS_{TS}$: time instance two symbols prior to the end of the DwPCH according to the Node B internal timing

9.3.20 Cell Sync Burst Timing

Measurement	Cell Sync Burst Timing
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Definition	Cell sync burst timing is the time of start (defined by the first detected path in time) of the cell sync burst of a neighbouring cell. Type 1 is used for the initial phase of Node B synchronization. Type 2 is used for the steady-state phase of Node B synchronization.

9.3.21 Cell Sync Burst SIR

Measurement	Cell Sync Burst SIR
Source	L1(Node B)
Destination	RRC (RNC)
Reporting Trigger	Periodic, event triggered
Definition	Signal to Interference Ratio for the cell sync burst, defined as: $RSCP/Interference$, where:

9.3.22 SFN-SFN Observed time difference

Measurement	SFN-SFN observed time difference
Source	L1 (LMU)
Destination	RRC (RNC-UE positioning)
Reporting Trigger	On-demand, Periodic, On Modification
Description	Measured time between reception of signal from a specific reference UTRA cell and from a neighbour UTRA cell.

9.3.23 Angle of Arrival (AOA) for 1.28 Mcps TDD

Measurement	Angle of Arrival (AOA) for 1.28Mcps TDD
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	event-triggered, on-demand
Description	AOA defines the estimated angle of a user with respect to a reference direction. The reference direction for this measurement shall be the North, positive in a counter-clockwise direction. The AOA is determined at the UTRAN access point antenna for an UL channel corresponding to this UE.

9.3.24 HS-SICH reception quality

Measurement	HS-SICH reception quality
Source	L1 (Node B)
Destination	RRC (RNC)
Reporting Trigger	On-demand, Event-triggered, Periodic
Description	The HS-SICH reception quality is defined via the the number of expected HS-SICH transmissions from a given UE and the number of unsuccessful HS-SICH receptions for this same UE in the Node B. For 1.28 Mcps TDD, only measurements made on HS-SICH transmissions that were transmitted using open loop power control are reported as part of this measurement. This measurement is applicable for TDD cells only.