TSG RAN Meeting #24 **RP-040197**
Seoul, Korea, 2 - 4 June 2004

Title **CR (Rel-6) to TS 25.141 for "High Speed Downlink Packet Access"**
Source **TSG RAN WG4**
Agenda Item **8.11**

RAN4 Tdoc	Spec	CR	R	Cat	Rel	Curr Ver	Title	Work Item
R4-040304	25.141	348	1	F	Rel-6	6.5.0	Clarifications of test procedures for HS-DPCCH signaling detection requirements	HSDPA-RF

3GPP TSG RAN WG4 (Radio) Meeting #31 **R4-040304**

Beijing, China 10 - 14 May 2004

CR-Form-v7

CHANGE REQUEST

⌘ **25.141** **CR** **348** ⌘ **rev** **1** ⌘ Current version: **6.5.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☒ Core Network ☐

Title:	⌘	Clarifications of test procedures for HS-DPCCH signaling detection requirements
Source:	⌘	RAN WG4
Work item code:	⌘	HSDPA-RF
Date:	⌘	24/05/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
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.

Use one 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)*
Rel-6 *(Release 6)*

Reason for change: ⌘ Some wordings in the test procedures for HS-DPCCH signaling detection requirements are ambiguous:

1) The meaning of the last sentence of step 4) in section 8.11.1.4.2 and step 5) in section 8.11.2.4.2 "ACK false detection should be made only on those slots ACK/NACK should be observed." should be clarified. As the test signal generator sends only DPCCH and DPDCH, hence no ACK/NACK should be observed (any observed ACK/NACK should be counted as errors).
2) The meaning of the last sentence of step 4) in section 8.11.3.4.2 and step 5) in section 8.11.4.4.2 "The error ratio is calculated for the ACKs that have been detected." should be clarified. As the error ratio should be calculated based on the number of ACK mis-detected. And the second sentence "The receiver tries to detect ACK." may be interpreted that the receiver should try to detect ACK but not NACK. Moreover, the measured Ec/No corresponds to energy combined from DCH and HS-DPCCH as defined in the reference measurement channel. The power offset between HS-DPCCH and DPCCH is defined to be 0 dB. However, it should be clarified that there is a continuous transmission of ACK/NACK and CQI on the HS-DPCCH. For instance, if no CQI is transmitted, the Ec/No measurement would be distorted.

Summary of change: ⌘ The ambiguous wordings in the above sentences are clarified to:

1) The test signal generator sends only DPCCH and DPDCH. The receiver tries to detect HS-DPCCH signaling. The ACK false detection rate should be measured only on those slots corresponding to the ACK/NACK field of HS-DPCCH.
2) The test signal generator sends the ACKs and CQIs with DPCCH/DPDCH. The receiver tries to detect HS-DPCCH signaling. The ACK mis-detection rate should be measured only on those slots corresponding to the ACK/NACK

		field of HS-DPCCH.
Consequences if not approved:	⌘	The wordings in the test procedures for HS-DPCCH signaling detection requirements remain ambiguous, hence may be mis-understood.

Clauses affected:	⌘	8.11.1.4.2, 8.11.2.4.2, 8.11.3.4.2, 8.11.4.4.2			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	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/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.

8.11.1.4.2 Procedure

1) Adjust the AWGN generator to -84 dBm/3.84 MHz at the BS input.

2) The characteristics of the wanted signal shall be configured according to the corresponding UL reference measurement channel defined in annex A.

3) Adjust the equipment so that required E_c/N_0 specified in table 8.31 is achieved. To achieve the specified E_c/N_0, the ratio of the wanted signal level relative to the AWGN signal at the BS input should be adjusted to: E_c/N_0 [dB].

4) The test signal generator sends only DPCCH and DPDCH. The receiver tries to detect HS-DPCCH signaling. The ACK false detection rate should be measured only on those slots corresponding to the ACK/NACK field of HS-DPCCH.~~The test signal generator sends only DPCCH and DPDCH and the receiver tries to detect HS-DPCCH signaling. This pattern is repeated. ACK false detection should be made only on those slots ACK/NACK should be observed.~~

8.11.2.4.2 Procedure

1) Adjust the AWGN generator to -84 dBm/3.84 MHz at the BS input.

2) The characteristics of the wanted signal shall be configured according to the corresponding UL reference measurement channel defined in annex A.

3) The multipath fading emulators shall be configured according to the corresponding channel model defined in annex D.

4) Adjust the equipment so that required E_c/N_0 specified in table 8.33 is achieved. To achieve the specified E_c/N_0, the ratio of the wanted signal level relative to the AWGN signal at the BS input should be adjusted to: E_c/N_0 [dB].

5) The test signal generator sends only DPCCH and DPDCH. The receiver tries to detect HS-DPCCH signaling. The ACK false detection rate should be measured only on those slots corresponding to the ACK/NACK field of HS-DPCCH.~~The test signal generator sends only DPCCH and DPDCH and the receiver tries to detect HS-DPCCH signaling. This pattern is repeated. ACK false detection should be made only on those slots ACK/NACK should be observed.~~

8.11.3.4.2 Procedure

1) Adjust the AWGN generator to -84 dBm/3.84 MHz at the BS input.

2) The characteristics of the wanted signal shall be configured according to the corresponding UL reference measurement channel defined in annex A.

3) Adjust the equipment so that required E_c/N_0 specified in table 8.35 is achieved. To achieve the specified E_c/N_0, the ratio of the wanted signal level relative to the AWGN signal at the BS input should be adjusted to: E_c/N_0 [dB].

4) The test signal generator sends the ACKs and CQIs with DPCCH/DPDCH. The receiver tries to detect HS-DPCCH signaling. The ACK mis-detection rate should be measured only on those slots corresponding to the ACK/NACK field of HS-DPCCH.~~The test signal generator sends the ACKs with DPCCH/DPDCH. The receiver tries to detect ACK. The error ratio is calculated for the ACKs that have been detected.~~

8.11.4.4.2 Procedure

1) Adjust the AWGN generator to -84 dBm/3.84 MHz at the BS input.

2) The characteristics of the wanted signal shall be configured according to the corresponding UL reference measurement channel defined in annex A.

3) The multipath fading emulators shall be configured according to the corresponding channel model defined in annex D.

4) Adjust the equipment so that required E_c/N_0 specified in table 8.37 is achieved. To achieve the specified E_c/N_0, the ratio of the wanted signal level relative to the AWGN signal at the BS input should be adjusted to: E_c/N_0 [dB]

5) The test signal generator sends the ACKs and CQIs with DPCCH/DPDCH. The receiver tries to detect HS-DPCCH signaling. The ACK mis-detection rate should be measured only on those slots corresponding to the ACK/NACK field of HS-DPCCH.~~The test signal generator sends the ACKs with DPCCH/DPDCH. The receiver tries to detect ACK. The error ratio is calculated for the ACKs that have been detected.~~