TSG RAN Meeting #27   **RP-050096**
Tokyo, Japan, 9 - 11 March 2005

Title   CR (Rel-6 Category B) to TS25.214 for Faster L1 DCH synchronization
Source   TSG RAN WG1
Agenda Item   9.8

RAN1 Tdoc	Spec	CR	Rev	Rel	Cat	Current Version	Subject	Work item	Remarks
R1-050173	25.214	355	2	Rel-6	B	6.4.0	Faster L1 DCH synchronization	TEI6	Linked CRs from WG2 and WG4 not available yet.

CR-Form-v7.1

CHANGE REQUEST

⌘   **TS 25.214 CR 355**   ⌘ **rev 2** ⌘   Current version: **6.4.0** ⌘

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 **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Faster L1 DCH synchronization		
Source: ⌘	RAN WG1		
Work item code: ⌘	TEI6	**Date:** ⌘	07/02/2005

Category: ⌘ **B**

Use <u>one</u> 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.

Release: ⌘ Rel-6

Use <u>one</u> of the following releases:
Ph2   (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)
Rel-7 (Release 7)

Reason for change: ⌘	In many cases L1 DCH synchronization is unnecessarily delayed by a 40ms DL DPCCH quality check.
Summary of change: ⌘	A faster DCH synchronization is defined, where the 40ms DL quality check is omitted, but a 40ms post-verification period is introduced to ensure stable system operation. The choice whether or not to use the 40ms DL quality check (and the post-verification) is under control of the UTRAN.
Consequences if not approved: ⌘	In many cases L1 DCH synchronization is unnecessarily delayed by a 40ms DL DPCCH quality check.

Clauses affected: ⌘	5.1.2.2.1.1

Other specs affected: ⌘	Y	N		
	X		Other core specifications ⌘	25.331, 25.101
			Test specifications	
			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.

5.1.2.2.1.1 Out of synchronisation handling

After 160 ms after physical channel establishment (defined in [5]), the UE shall control its transmitter according to a downlink DPCCH quality criterion as follows:

- The UE shall shut its transmitter off when the UE estimates the DPCCH quality over the last 160 ms period to be worse than a threshold Q_{out}. Q_{out} is defined implicitly by the relevant tests in [7].

- The UE can turn its transmitter on again when the UE estimates the DPCCH quality over the last 160 ms period to be better than a threshold Q_{in}. Q_{in} is defined implicitly by the relevant tests in [7]. When transmission is resumed, the power of the DPCCH shall be the same as when the UE transmitter was shut off.

If higher layers indicate the usage of a post-verification period, the UE shall control its transmitter according to a downlink DPCCH quality criterion as follows:

- When the UE estimates the DPCCH quality over the first 40 ms period of the first phase of the downlink synchronisation status evaluation to be worse than a threshold Q_{out}, the UE shall shut its transmitter off and the UE physical layer shall report post-verification failure to the higher layers. Q_{out} is defined implicitly by the relevant tests in [7].