TSG RAN Meeting #16 **RP-020300**
Marco Island, FL, USA, 4 - 7 June 2002

Title **CRs (Rel-6) for WI "Improving Receiver Performance Requirements for the FDD UE"**
Source **TSG RAN WG4**
Agenda Item **8.2.7**

RAN4 Tdoc	Spec	Curr Ver	New Ver	CR	R	Cat	Ph	Title	Acronym
R4-020959	25.101	5.2.0	6.0.0	166	1	C	Rel-6	FDD UE Performance Requirements	RInImp-UERecPerf

3GPP TSG RAN WG4 Meeting #23 **R4-020959**

Gyeongju, Korea 13th -17th May, 2002

CR-Form-v4

CHANGE REQUEST

⌘ **25.101** **CR** **166** ⌘ ev **1** ⌘ Current version: **5.2.0** ⌘

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

Title:	⌘	FDD UE Performance Requirements
Source:	⌘	RAN WG4
Work item code:	⌘	RInImp-UERecPerf
Date:	⌘	17/5/2002
Category:	⌘	**C**
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)*

Reason for change:	⌘	To ensure improved performance requirements for Release 6 terminals, as endorsed in Tdoc. R4-020520, (Jan. 2002).
Summary of change:	⌘	The inter-cell soft-handover performance requirements are tightened for the 144 kbps and 384 kbps tests.
Consequences if not approved:	⌘	No improved performance requirements for Release 6 terminals

Clauses affected:	⌘	8.7.1.1		
Other specs affected:	⌘	☐ Other core specifications **X** Test specifications ☐ O&M Specifications	⌘	34.121
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://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.

8.7 Demodulation in Handover conditions

8.7.1 Demodulation of DCH in Inter-Cell Soft Handover

The bit error rate characteristics of UE is determined during an inter-cell soft handover. During the soft handover a UE receives signals from different cells. A UE has to be able to demodulate two PCCPCH channels and to combine the energy of DCH channels. Delay profiles of signals received from different cells are assumed to be the same but time shifted by 10 chips.

The receive characteristics of the different channels during inter-cell handover are determined by the average Block Error Ratio (BLER) values.

8.7.1.1 Minimum requirement

For the parameters specified in Table 8.25 the average downlink $\frac{DPCH\_E_c}{I_{or}}$ power shall be below the specified value for the BLER shown in Table 8.26.

Table 8.25: DCH parameters in multi-path propagation conditions during Soft Handoff (Case 3)

Parameter	Unit	Test 1	Test 2	Test 3	Test 4
Phase reference		P-CPICH			
$\hat{I}_{or1}/I_{oc}$ and $\hat{I}_{or2}/I_{oc}$	dB	0	0	3	6
I_{OC}	dBm/3.84 MHz	-60			
Information data Rate	kbps	12.2	64	144	384

Table 8.26: DCH requirements in multi-path propagation conditions during Soft Handoff (Case 3)

Test Number	$\frac{DPCH\_E_c}{I_{or}}$	BLER
1	-15.2 dB	10^{-2}
2	-11.8 dB	10^{-1}
	-11.3 dB	10^{-2}
3	~~-9.6 dB~~-9.9 dB	10^{-1}
	~~-9.2 dB~~-9.5 dB	10^{-2}
4	~~-6.0 dB~~-6.3 dB	10^{-1}
	~~-5.5 dB~~-5.8 dB	10^{-2}