TSG-RAN Meeting #10 ***RP-000703***
Bangkok, Thailand, 6 - 8 December 2000

Title: CR 62 Rev 1 for TS 25.141

Source: CSELT, Nokia, Ericsson

Agenda Item: 5.4.3

Tdoc Num	TS	CR number	Rev	Title	Type	Status	Cur Ver	New Ver
R4-001002	25.141	62	1	Modifications explaining implementation of Test tolerance to Tests	F	Agreed Off line	3.3.0	3.4.0

CR-Form-v3

CHANGE REQUEST

⌘ **TS 25.141 CR 62** ⌘ rev **1** ⌘ Current version: **3.3.0** ⌘

*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:	⌘	Modifications explaining implementation of Test tolerance to Tests
Source:	⌘	TSG RAN WG4
Work item code:	⌘	***Date:*** ⌘ 00-11-16
Category:	⌘	**F** ***Release:*** ⌘ R99

Use one 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 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:	⌘	New test limit have been introduced accounting for test tolerances.
Summary of change:	⌘	An informative Annex explains how the test limit and core specification value relates to each other and what the test tolerance is. The test tolerances subclause has been updated according to the decisions taken at the RAN4#14 meeting (R4-000991).
Consequences if not approved:	⌘	When implementing test tolerances, the test limit and the core specification value will differ. If this is not explained, the specification may be open to interpretations. Besides, if the test tolerances are not updated, the test limits will be incorrect.

Clauses affected:	⌘	Annex X and subclause 4.2
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	Is aligned with CRs 57, 58 and 59 for TS 25.141.

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.

4.2 Test tolerances

The following values may be increased only on a test by test basis. The test tolerances should not be increased to take account of commonly known test system errors (such as mismatch, cable loss, etc.)

4.2.1 Transmitter

Subclause 6.2, Base station output power:

- base station maximum output power ±0,7[0,5] dB.

Subclause 6.3, Frequency stability:

- carrier frequency ±[10] Hz.

Subclause 6.4.1, Inner loop power control in the downlink:

- transmitter power control step (relative 1 dB step) ±[0,3] dB;
- transmitter average power control step (relative 10 × 1 dB steps) ±[0,5] dB.

NOTE 1: Code domain power.

Subclause 6.4.3, Power control dynamic range:

- maximum and minimum power ±[0,8] dB;
- power control dynamic range (at 25 dB relative power) ±[0,5] dB.

NOTE 2: Code domain power.

Subclause 6.4.4, Total power dynamic range:

- total power ±[0,5] dB;
- total power dynamic range (at 18 dB relative power) ±[0,3] dB.

Subclause 6.2.2, CPICH power accuracy:

- CPICH power ±[0,8] dB.

NOTE 3: Code domain power.

Subclause 6.5.1, Occupied bandwidth:

- occupied channel bandwidth ±0[.] kHz.

Subclause 6.5.2.1, Spectrum emission mask:

- emission power:

Table 4.1: Uncertainty for Spectrum emission mask measurement

Frequency offset Δf		Uncertainty
2,5 ≤ Δf < 2,7 MHz		±[1.5] dB
2,7 ≤ Δf < 3,5 MHz		±[1,5] dB
3,5 ≤ Δf < 7,5 MHz		±[1,5] dB
7,5 ≤ Δf ≤ Δf_{max} MHz		±[1,5] dB

Subclause 6.5.2.2, Adjacent Channel Leakage power Ratio (ACLR):

- ACLR ± 5 MHz (Relative carrier power) ±[0,8] dB;
- ACLR ± 10 MHz (Relative carrier power) ±[0,8] dB.

Subclause 6.5.3.7, Protection of the BS receiver:

- emission power ±[1,5] dB.

Subclause 6.5.3, Spurious emissions:

- conformance requirement in BS and coexistence receive bands:
  - emission power ±[0] dB.

- conformance requirements outside BS and coexistence receive bands:
  - emission power:

    f ≤ 2.2 GHz ±~~[~~0~~]~~ dB;

    2.2 GHz < f ≤ 4 GHz ±~~[~~0~~]~~ dB;

    f > 4 GHz ±~~[~~0~~]~~ dB.

Subclause 6.6, Transmit intermodulation:
- interference signal power relative the carrier power ±0~~[1,0]~~ dB;
- intermodulation power ±0~~[1,5]~~ dB.

Subclause 6.7.1, Modulation Accuracy:
- modulation accuracy (EVM) ±0~~[2,5]~~ % RMS.

Subclause 6.7.2, Peak code Domain error:
- peak code domain error ±[] dB.

4.2.2 Receiver

Subclause 7.2, Reference sensitivity level:
- test signal power ±[0,8] dB.

Subclause 7.3, Dynamic range:
- test signal power ±[0,8] dB;
- AWGN signal power ±[1,0] dB.

Subclause 7.4, Adjacent Channel Selectivity (ACS):
- test signal power ±0~~[0,8]~~ dB;
- interfering signal power (Relative to the test signal) ±0~~[0,8]~~ dB.

Subclause 7.5, Blocking characteristics:
- test signal power ±0~~[0,8]~~ dB:
  - interfering signal power:

    f ≤ 2,2 GHz ±0~~0,7~~ dB;

    2,2 GHz < f ≤ 4 GHz ±0~~1,5~~ dB;

    f > 4 GHz ±0~~3,0~~ dB.

Subclause 7.6, Intermodulation characteristics:
- test signal power ±0~~[0,8]~~ dB;
- interfering signals power ±0~~[0,7]~~ dB.

Subclause 7.7, Spurious emissions:
- emission power:

  f ≤ 2,2 GHz ±0~~[1,5]~~ dB;

  2,2 GHz < f ≤ 4 GHz ±0~~[2,0]~~ dB;

  f > 4 GHz ±0~~[4,0]~~ dB.

4.2.3 Performance requirement

Subclause 8.2, Demodulation in static propagation condtion:
- test signal power ±[] dB;

- Eb/I0 (relative) ±[] dB.

Subclause 8.3, Demodulation of DCH in multiplath fading conditons:
- test signal power ±[] dB;

- Eb/I0 (relative) ±[] dB.

4.2.4 RRM measurements

The following tolerances refer to the requirements of 25.133.
tbd

Annex X (informative):
Test Tolerances Applied to the Tests

For the tests where a non-zero test tolerance is applied, the test tolerance and its implementation is explained in Table X.1

Table X.1. Core requirements, test tolerancas and test limits.

Clause number	**Title**	**Core requirement in TS 25.104**	**Test tolerance**	**Test limit in TS 25.141**
6.2.1.2	Base station maximum output power	In normal conditions … within +2 dB and -2 dB	0.7 dB	In normal conditions … within +2.7 dB and –2.7 dB
		In extreme conditions… within +2.5 dB and –2.5 dB		In extreme conditions… within +3.2 dB and –3.2 dB
6.5.2.1	Spectrum emission mask	Tables 6.11, 6.12, 6.13 and 6.14: "Maximum level" = X dB	1.5 dB	Tables 6.11, 6.12, 6.13 and 6.14: "Maximum level" = X+1.5 dB
6.5.2.2	Adjacent Channel Leakage power Ratio (ACLR)	45 dB	0.8 dB	44.2 dB
		50 dB		49.2 dB