CR-Form-v4

CHANGE REQUEST

| ⌘ | **25.402** CR **025** | ⌘ | ᵉv | **1** | ⌘ | Current version: | **4.1.0** | ⌘ |

*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 **X**   Core Network ☐

Title: ⌘	Correction of the Frequency Accuracy in the Frequency Acquisition Phase	
Source: ⌘	Siemens AG	
Work item code: ⌘	RANimp-Nbsync	***Date:*** ⌘ September 2001
Category: ⌘ **F**		***Release:*** ⌘ REL-4

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: ⌘	The Frequency Accuracy of the Frequency Acquisition Phase is incorrect because the WG1 TR 25.836 says "When a cell has detected that it has locked its frequency to within 50 ppb of the received signal..." and TS 25.402 says "When a cell has detected that it has locked its frequency to within 50 ppm of the received signal..." therefore the discrepancy between these specs should be corrected **Reason for Revision 1:** The Frequency Stability requirement, which has to be met for completion of "Frequency Acquisition Phase", is specified in RAN4 specification TS25.105. To avoid duplication, the absolute value is removed from this RAN3 specification and a reference to TS25.105 is inserted instead.
Summary of change: ⌘	In section 6.1.2.2.1A, step 3), the value "50ppm" for Frequency Accuracy is replaced by a reference to RAN specification TS25.105. In addition, the reference itself is corrected.
Consequences if not approved: ⌘	Inconsistency between RAN WG1 report or RAN WG4 specs and RAN WG3 specs. **Backward compatibility:** This CR is backward compatible to the current R99 version, as none of the R99 protocol procedures are affected. **Isolated Impact:** This CR has isolated impact to the current R99 version, because none of the R99 functions are effected.

Clauses affected: ⌘	2, 6.1.2.2.1A
Other specs Affected: ⌘	☐ Other core specifications ⌘ ☐ 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/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.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.

[1]   3GPP TS 25.401: "UTRAN Overall Description".

[2]   3GPP TS 25.423: "UTRAN Iur Interface RNSAP Signalling".

[3]   3GPP TS 25.433: "UTRAN Iub Interface NBAP Signalling".

[4]   3GPP TS 25.435: "UTRAN Iub Interface User Plane Protocols for COMMON TRANSPORT CHANNEL Data Streams".

[5]   3GPP TS 25.427: "Iub/Iur Interface User Plane Protocol for DCH Data Streams".

[6]   EIA 422-A-78: "Electrical characteristics of balanced voltage digital interface circuits".

[7]   3GPP TS 25.411: "UTRAN Iu Interface Layer 1".

[8]   3GPP TS 25.421: "UTRAN Iur Interface Layer 1".

[9]   3GPP TS 25.431: "UTRAN Iub Interface Layer 1".

[10]   3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception".

[11]   3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[12]   3GPP TS 25.223: "Spreading and modulation (TDD)".

[13]   3GPP TS 25.215: "Physical layer - Measurements (FDD)".

[14]   3GPP TS 25.225: " Physical layer - Measurements (TDD)".

[15]   3GPP TS 25.123: "Requirements for Support of Radio Resource Management".

[16]   3GPP TS 25.224: "Physical Layer Procedures (TDD)".

[17]   3GPP TS 25.~~1~~105: "UTRA (BS) TDD, Radio transmission and Reception".

[18]   ITU-T G.811 (02/97): "Timing Characteristics of Primary Reference Clocks".

[19]   ITU-T G.812 (09/97): "Timing Requirements of Slave Clocks suitable for use as Node Clocks in Synchronisation Network".

[20]   ITU-T G.813 (08/96): "Timing Characteristics of SDH equipment slave clocks (SEC)".

[21]   EN 300 462-4-1(03/98): "Timing characteristics of slave clocks suitable for synchronisation supply to Synchronisation Digital Hierarchy (SDH) and Plesiochronous Digital Hierarchy".

6.1.2.2.1A   Frequency Acquisition Phase

The frequency acquisition phase is used to bring cells of an RNS area to within frequency limits prior to initial synchronisation. No traffic is supported during this phase.

1) The cell(s) identified as reference cell, i.e. external reference clock is connected to, shall transmit continuously cell sync bursts in every time slot where possible according to the information's given in the CELL SYNCHRONISATION INITIATION REQUEST message.

2) All other cells are considered as unlocked (i.e. not in frequency lock) shall listen for transmission from other cells and perform frequency locking to any transmission received. For setting the parameters within the Node B to listen for transmission from other cells, the CELL SYNCHRONISATION INITIATION REQUEST message is used.

3) A cell shall signal completion of frequency acquisition to the RNC, as soon as it has locked its frequency to the received signal, fulfilling the Frequency Stability requirement set in [17]. ~~When a cell has detected that it has locked its frequency to within 50 ppm of the received signal, it shall signal completion of frequency acquisition to the RNC.~~

4) If the cell(s) have received transmission request on instructing the frequency acquisition and the cell(s) have performed frequency locking, the cell(s) shall begin transmitting the specified code for frequency locking of other cells.

5) When the RNC has received completion of frequency acquisition signals from all cells the frequency acquisition phase is completed.