

TSG RAN Meeting #13
Beijing, China, 18-21 September 2001

RP-010631

Title: CRs (Rel-4) to TS 25.133

Source TSG RAN WG4

Agenda item: 8.4.4

RAN4 Tdoc	Spec	CR	Title	Cat	Phase	Curr Ver	New Ver
R4-011001	25.133	181	UTRAN SFN-SFN observed time difference	B	Rel-4	4.1.0	4.2.0
R4-011142	25.133	182	Correction of UE positioning measurements	F	Rel-4	4.1.0	4.2.0
R4-011143	25.133	183	RACH Propagation delay accuracy	F	Rel-4	4.1.0	4.2.0

CHANGE REQUEST

⌘ TS 25.133 CR 181 ⌘ ev - ⌘ 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 Core Network

Title:	⌘ Introduction of SFN-SFN observed time difference requirement for UTRAN.		
Source:	⌘ RAN WG4		
Work item code:	⌘ TEI4	Date:	⌘ 2001-07-11
Category:	⌘ B	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)		2 (GSM Phase 2)
	A (corresponds to a correction in an earlier release)		R96 (Release 1996)
	B (addition of feature),		R97 (Release 1997)
	C (functional modification of feature)		R98 (Release 1998)
	D (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP IR 21.900 .		REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ Aligning the requirement according TS 25.305 and TS 25.215 of UTRAN RTD measurement
Summary of change:	⌘ -UTRAN SFN-SFN observed time difference measurement accuracy is proposed to be +- 0.5 chip. -Mapping of measurement results is proposed to 1/16 chip as in UE case as well.
Consequences if not approved:	⌘ UTRAN RTD requirements are not complete, and some network based UP services cannot be implemented.

Clauses affected:	⌘ 9.2 UTRAN measurement, new sub clause is added.
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications ⌘ <input type="checkbox"/> O&M Specifications
	<input checked="" type="checkbox"/> Test 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:

- Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 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.

9.2.14 Acknowledged PCPCH access preambles

The measurement period shall be 20 ms.

9.2.14.1 Acknowledged PCPCH access preambles measurement report mapping

The *Acknowledged PCPCH access preambles* reporting range is 0 ... 15.

In Table 9.59, the mapping of measured quantity is defined. The range in the signalling may be larger than the guaranteed accuracy range.

Table 9.59

Reported value	Measured quantity value	Unit
ACK_PCPCH_AP_00	Acknowledged PCPCH access preambles = 0	-
ACK_PCPCH_AP_01	Acknowledged PCPCH access preambles = 1	-
ACK_PCPCH_AP_02	Acknowledged PCPCH access preambles = 2	-
...
ACK_PCPCH_AP_12	Acknowledged PCPCH access preambles = 12	-
ACK_PCPCH_AP_13	Acknowledged PCPCH access preambles = 13	-
ACK_PCPCH_AP_14	Acknowledged PCPCH access preambles = 14	-
ACK_PCPCH_AP_15	Acknowledged PCPCH access preambles = 15	-

9.2.15 SFN-SFN observed time difference

This measurement is needed for RTD estimation in UTRAN.

9.2.15.1 Accuracy requirement

9.2.15.1.1 Accuracy requirement without IPDL

The measurement period shall be [100] ms.

Table 9.60

Parameter	Unit	Accuracy [chip]	Conditions
			Range [chips]
SFN-SFN observed time difference	chip	+/- 0.5	-1280.0000...1280.0000

9.2.15.1.2 Accuracy requirement with IPDL

The measurement period shall be [TBD] ms.

IPDL pattern parameters [TBD].

Table 9.61

Parameter	Unit	Accuracy [chip]	Conditions
			Range [chips]
SFN-SFN observed time difference	chip	+/- 0.5	-1280.0000...1280.0000

9.2.15.2 SFN-SFN observed time difference measurement report mapping

The SFN-SFN observed time difference reporting range is from -1280.0000 ... 1280.0000 chip.

In table 9.62 the mapping of measured quantity is defined. The range in the signalling may be larger than the guaranteed accuracy range.

Table 9.62

<u>Reported value</u>	<u>Measured quantity value</u>	<u>Unit</u>
<u>SFN-SFN_TIME_00000</u>	<u>SFN-SFN observed time difference < -1280.0000</u>	<u>chip</u>
<u>SFN-SFN_TIME_00001</u>	<u>-1280.0000 ≤ SFN-SFN observed time difference < -1279.9375</u>	<u>chip</u>
<u>SFN-SFN_TIME_00002</u>	<u>-1279.9375 ≤ SFN-SFN observed time difference < -1279.8750</u>	<u>chip</u>
<u>...</u>	<u>...</u>	<u>...</u>
<u>SFN-SFN_TIME_40959</u>	<u>1279.8750 ≤ SFN-SFN observed time difference < 1279.9375</u>	<u>chip</u>
<u>SFN-SFN_TIME_40960</u>	<u>1279.9375 ≤ SFN-SFN observed time difference < 1280.0000</u>	<u>chip</u>
<u>SFN-SFN_TIME_40961</u>	<u>1280.0000 ≤ SFN-SFN observed time difference</u>	<u>chip</u>

CHANGE REQUEST

⌘ **25.133 CR 182** ⌘ ev **-** ⌘ 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 Core Network

Title:	⌘ Correction of UE positioning measurements		
Source:	⌘ RAN WG4		
Work item code:	⌘ TEI4	Date:	⌘ 2001-08-21
Category:	⌘ F	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	REL-4 (Release 4)	
		REL-5 (Release 5)	

Reason for change:	⌘ At WG4#17 R4-010778 was approved and later the CR was approved at RAN#12. In 25.133 version 4.1.0 the name LCS has not been replaced with UE positioning according to R4-010778. The note and measurement period have also accidentally been deleted from section 9.2.10 when implementing R4-010778.
Summary of change:	⌘ Aligning section 9.1.12 and 9.2.10 with the CR in R4-010778, i.e. replacing the name LCS with UE positioning and incorporating the note and measurement period in section 9.2.10.
Consequences if not approved:	⌘ Inconsistency and missing information will still exist in 25.133 section 9.1.12 and 9.2.10.

Clauses affected:	⌘ 9.1.12, 9.2.10		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications	⌘	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> 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/](http://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.

9.1.12 UE GPS Timing of Cell Frames for UE positioning~~LCS~~

The requirements in this section are valid for terminals supporting this capability:

Table 9.33

Parameter	Unit	Accuracy [chip]	Conditions
UE GPS Timing of Cell Frames for <u>UE positioning</u> LCS	chip	[]	

9.1.12.1 UE GPS timing of Cell Frames for UE positioning measurement report mapping

The reporting range is for UE GPS timing of Cell Frames for UE positioning is from 0 ... 2322432000000 chip.

In table 9.34 the mapping of measured quantity is defined.

Table 9.34

Reported value	Measured quantity value	Unit
GPS_TIME_0000000000000000	UE GPS timing of Cell Frames for UE positioning < 0.0625	chip
GPS_TIME_0000000000000001	$0.0625 \leq$ UE GPS timing of Cell Frames for UE positioning < 0.1250	chip
GPS_TIME_0000000000000002	$0.1250 \leq$ UE GPS timing of Cell Frames for UE positioning < 0.1875	chip
...
GPS_TIME_37158911999997	$2322431999999.8125 \leq$ UE GPS timing of Cell Frames for UE positioning < 2322431999999.8750	chip
GPS_TIME_37158911999998	$2322431999999.8750 \leq$ UE GPS timing of Cell Frames for UE positioning < 2322431999999.9375	chip
GPS_TIME_37158911999999	$2322431999999.9375 \leq$ UE GPS timing of Cell Frames for UE positioning < 2322432000000.0000	chip

9.2.10 UTRAN GPS Timing of Cell Frames for UE positioning

NOTE: This measurement is used for UE positioning purposes.

The measurement period shall be [1] second.

9.2.10.1 Accuracy requirement

Three accuracy classes are defined for the UTRAN GPS Timing of Cell Frames for UE positioningLCS measurement, i.e. accuracy class A, B and C. The implemented accuracy class depends on the UE positioningLCS methods that are supported.

Table 9.53

Parameter	Unit	Accuracy [chip]	Conditions
UTRAN GPS Timing of Cell Frames for <u>UE positioningLCS</u>	chip	Accuracy Class A: +/- [20000] chip Accuracy Class B: +/- [20] chip Accuracy Class C: +/- [X] chip	Over the full range

9.2.10.2 UTRAN GPS timing of Cell Frames for UE positioningLCS measurement report mapping

The reporting range is for UTRAN GPS timing of Cell Frames for UE positioningLCS is from 0 ... 2322432000000 chip.

In table 9.54 the mapping of measured quantity is defined.

Table 9.54

Reported value	Measured quantity value	Unit
GPS_TIME_00000000000000	UTRAN GPS timing of Cell Frames for <u>UE positioningLCS</u> < 0.0625	chip
GPS_TIME_00000000000001	0.0625 ≤ UTRAN GPS timing of Cell Frames for <u>UE positioningLCS</u> < 0.1250	chip
GPS_TIME_00000000000002	0.1250 ≤ UTRAN GPS timing of Cell Frames for <u>UE positioningLCS</u> < 0.1875	chip
...
GPS_TIME_37158911999997	2322431999999.8125 ≤ UTRAN GPS timing of Cell Frames for <u>UE positioningLCS</u> < 2322431999999.8750	chip
GPS_TIME_37158911999998	2322431999999.8750 ≤ UTRAN GPS timing of Cell Frames for <u>UE positioningLCS</u> < 2322431999999.9375	chip
GPS_TIME_37158911999999	2322431999999.9375 ≤ UTRAN GPS timing of Cell Frames for <u>UE positioningLCS</u> < 2322432000000.0000	chip

CR-Form-v4	
CHANGE REQUEST	
⌘ 25.133 CR 183 ⌘ ev - ⌘ 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 Core Network

Title:	⌘ RACH Propagation delay accuracy		
Source:	⌘ RAN WG4		
Work item code:	⌘ TEI4	Date:	⌘ 2001-08-21
Category:	⌘ F	Release:	⌘ Rel-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .	REL-4 (Release 4)	REL-5 (Release 5)

Reason for change:	⌘ Currently there is no accuracy requirement defined for the RACH Propagation delay measurement in 25.133.
Summary of change:	⌘ +/-2 chip accuracy is proposed for the RACH Propagation delay measurement, valid in the conditions specified for RACH message decoding in AWGN as specified in 25.104.
Consequences if not approved:	⌘ The accuracy for the RACH Propagation delay measurement will be missing.

Clauses affected:	⌘ 9.2.11		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications	⌘ <input type="checkbox"/>	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> 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.

9.2.11 PRACH/PCPCH Propagation delay

9.2.11.1 Accuracy requirement

9.2.11.1.1 PRACH Propagation delay

The accuracy requirement in table 9.55 is valid under the following conditions:

The radio conditions are according to 25.104 section 8.7.2.1 Minimum requirements for Static Propagation Condition for BLER=10⁻¹.

Only RACH messages with correct CRC shall be considered

Table 9.55

Parameter	Unit	Accuracy [chip]	Conditions
			Range
<u>PRACH PropDelay</u>	chip	+/- <u>2</u>	<u>Over the full range</u>

9.2.11.1.2 PCPCH Propagation delay

Table 9.x

<u>Parameter</u>	<u>Unit</u>	<u>Accuracy [chip]</u>	Conditions
			Range
<u>PCPCH PropDelay</u>	<u>chip</u>	<u>+/- []</u>	

9.2.11.2 PRACH/PCPCH Propagation delay measurement report mapping

The *PRACH/PCPCH Propagation delay* reporting range is from 0 ... 765 chip.

In table 9.56 the mapping of measured quantity is defined. The range in the signalling may be larger than the guaranteed accuracy range.

Table 9.56

Reported value	Measured quantity value	Unit
PROP_DELAY_000	0 ≤ PRACH/PCPCH Propagation delay < 3	chip
PROP_DELAY_001	3 ≤ PRACH/PCPCH Propagation delay < 6	chip
PROP_DELAY_002	6 ≤ PRACH/PCPCH Propagation delay < 9	chip
...
PROP_DELAY_252	756 ≤ PRACH/PCPCH Propagation delay < 759	chip
PROP_DELAY_253	759 ≤ PRACH/PCPCH Propagation delay < 762	chip
PROP_DELAY_254	762 ≤ PRACH/PCPCH Propagation delay < 765	chip
PROP_DELAY_255	765 ≤ PRACH/PCPCH Propagation delay	chip