Technical Specification Group Radio Access Network Marco Island, USA 4 - 7 June 2002

RP#16(02) 0420

| TSG_Doc_Num | Specification | CR_Num | Revision_Num | 3G_Release | CR_Subject | CR_Categ | ory Cur_Ver_Num | New_Ver_Num | Tdoc_Num | WorkItem |
|-------------|---------------|--------|--------------|------------|--|----------|-----------------|-------------|-----------|----------------|
| RP-020420 | 25.433 | 651 | | Rel-4 | Clarification on the Neighboring TDD Cell Measurement | F | 4.4.0 | 4.5.0 | R3-021245 | TEI |
| RP-020420 | 25.433 | 652 | | Rel-5 | Clarification on the Neighboring TDD Cell Measurement | А | 5.0.0 | 5.1.0 | R3-021246 | TEI |
| RP-020420 | 25.433 | 653 | | Rel-4 | Introduction of SIB | F | 4.4.0 | 4.5.0 | R3-021247 | TEI |
| RP-020420 | 25.433 | 654 | | Rel-5 | Introduction of SIB | А | 5.0.0 | 5.1.0 | R3-021248 | TEI |
| RP-020420 | 25.433 | 674 | 1 | Rel-4 | Definition of quality figures for SFN-SFN and Tutran-gps | F | 4.4.0 | 4.5.0 | R3-021590 | LCS1- UEPos |
| RP-020420 | 25.433 | 675 | | Rel-5 | Definition of quality figures for SFN-SFN and Tutran-gps | А | 5.0.0 | 5.1.0 | R3-021350 | LCS1- UEPos |

3GPP TSG-RAN WG3 Meeting #29 Gyeongju, Korea, 13th – 17th May 2002

| | CR-Form-v3 CHANGE REQUEST |
|-------------------------------|--|
| * | 25.433 CR 651 |
| For <u>HELP</u> on | ing this form, see bottom of this page or look at the pop-up text over the ★ symbols. |
| Proposed change | fects: 第 (U)SIM ME/UE Radio Access Network X Core Network |
| Title: | Clarification on the Neighbouring TDD Cell Measurement Information |
| Source: | R-WG3 |
| Work item code: 8 | TEI Date: 第 May 2002 |
| Category: | F Release: ₩ REL-4 |
| | Jse one of the following categories: F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification) D (Editorial modification) Explain (Release 1999) Explain (Release 4) Explain (Release 5) |
| Reason for chang | # The "Neighbouring TDD Cell Measurement Information" IE contains two optional IEs which are not explained in the procedure text. ## Procedure text is added in the "Neighbouring TDD Cell Measurement Information" IE. |
| | Impact Analysis: Impact assessment towards the previous version of the specification (same release): This CR has no impact. |
| Consequences if not approved: | # If this CR is not approved, procedure text is missing in the "Neighbouring TDD Cell Measurement Information" IE. |
| Clauses affected: | ₩ 9.2.1.47D |
| | |
| Other specs | X Other core specifications |
| | 25.423 v5.0.0 CR 618 25.433 v5.0.0 CR 652 |
| affected: | Test specifications O&M Specifications |
| Other comments: | * |

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ 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.

9.2.1.47D Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. <u>Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.</u>

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------------------|----------|-------|-----------------------|------------------------|
| UC-ld | M | | 9.2.1.65B | |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.3.4 | |
| Time slot | 0 | | 9.2.3.23 | |
| Midamble shift and burst type | 0 | | 9.2.3.7 | |

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| | | | CHA | NGE | REC | UES | Т | | | CR-Form-v3 |
|----------------------------|--------------|---|--|---|---------------------|-----------|--|---|--|------------|
| * | 25 | .433 | CR <mark>652</mark> | : | ∺ rev | ж | Current vers | 5. | 0.0 | Ж |
| For <u>HELP</u> o | n using | this form | , see botton | of this | page or | look at t | he pop-up text | over the | ₩ syr | nbols. |
| Proposed chang | ge affec | ets: # | (U)SIM | ME/ | JE | Radio / | Access Networ | k <mark>X</mark> Co | ore Ne | etwork |
| Title: | ₩ Cla | arification | on the Neig | ghbourin | g TDD | Cell Mea | surement Info | mation | | |
| Source: | ₩ R- | WG3 | | | | | | | | |
| Work item code | :Ж <u>ТЕ</u> | 1 | | | | | Date: ♯ | May 20 | 02 | |
| Category: | ₩ A | | | | | | Release: # | REL-5 | | |
| | Deta | F (esser A (corre B (Addit C (Func D (Edito ailed expla | e following cantial correction sponds to a continuous feature, tional modificational modifications of the GPP TR 21.90 | n) correction), ation of fe on) e above o | in an ea eature) | | Use <u>one</u> of 2 se) R96 R97 R98 R99 REL-4 REL-5 | the follow (GSM Ph (Release (Release (Release (Release (Release | ase 2) 1996) 1997) 1998) 1999) 4) | eases: |
| Reason for char | nge: Ж | | leighbouring ich are not e | | | | Information" I re text. | E contain | s two | optional |
| Summary of cha | ange: ₩ | IE. Impact Impact release | Analysis: assessment | towards | | - | g TDD Cell Me | | | |
| Consequences not approved: | if ∺ | | CR is not ap | | | | s missing in the | e "Neighb | ouring | TDD |
| | | Cell IVI | easurement | miorma | IIION IE | | | | | |
| Clauses affected | d: | 9.2.1.47 | D' | | | | | | | |
| Other specs | ж | X Oth | er core spec | ification | s } | 25.423 | v4.4.0 CR 617 v5.0.0 CR 618 v4.4.0 CR 65 | 3 | | |
| affected: | | | t specification M Specificat | | | | | | | |
| Other comment | ç. ¥ | | | | | | | | | |

How to create CRs using this form:

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9.2.1.47D Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. <u>Since the measurement can be performed on every time slot and midamble shift, the *Time slot* IE and *Midamble shift and burst type* IE shall be included if available.</u>

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------------------|----------|-------|-----------------------|------------------------|
| UC-ld | M | | 9.2.1.65B | |
| UARFCN | M | | 9.2.1.65 | Corresponds to Nt [15] |
| Cell Parameter ID | M | | 9.2.3.4 | |
| Time slot | 0 | | 9.2.3.23 | |
| Midamble shift and burst type | 0 | | 9.2.3.7 | |

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| | | CHANGE | REQ | JEST | | | CR-Form-v3 |
|-------------------------------|--|--|--|---|--|--|---------------------------|
| ж | <mark>25.433</mark> C | R <mark>653</mark> | ₩ rev | - # | Current version | ion: 4.4.0 | ж |
| For <u>HELP</u> on us | ing this form, | see bottom of thi | s page or l | ook at the | e pop-up text | over the 兆 syr | nbols. |
| Proposed change a | ffects: # | (U)SIM ME | E/UE | Radio Ac | cess Network | X Core Ne | etwork |
| Title: # | Introduction | of SIB 15.5 | | | | | |
| Source: # | R-WG3 | | | | | | |
| Work item code: ₩ | LCS1-UEPos | s-lublur | | | Date: ♯ | May 2002 | |
| Category: Ж | F | | | | Release: ♯ | REL-4 | |
| | F (essent. A (corres) B (Addition C (Function D (Editorion Detailed explanate found in 3Glanate) The Sys | stem Information | on in an earl feature) categories Block 15.5 | can | 2 R96 R97 R98 R99 REL-4 REL-5 | | As this |
| | | Information Bloc ed in Rel-4 in NE | | | | | |
| Summary of change | Impact a release (same r This CR impact of function This col | Analysis: assessment towa this CR has iso elease). has an impact u can be considere namely the Sys rection is made i | rds the pre lated impain nder the produced to d isolated to tem Inform n a backwa | evious ver ct on the rotocol ar because t ation Bro | rsion of the sp previous vers and functional p the change af adcast. | pecification (sa sion of the spec point of view. T fects only one | ification he system |
| Consequences if not approved: | | R is not approved will remain and it | • | | • | | d TS |
| Clauses affected: | 第 <u>9.2.1.35</u> | i· 9 3 4 | | | | | |
| Other specs affected: | X Othe Test O&M | r core specifications specifications Specifications | ons X | TS 25.4 | 133 v 5.0.0 (| CR 654 | |
| Other comments: | | | | | | | |

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9.2.1.35 IB Type

The IB Type identifies a specific system information block.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|-----------------------|-----------------------|
| IB Type | | | Enumerated | |
| 71 - | | | (MIB, SB1, | |
| | | | SB2, SIB1, | |
| | | | SIB2 | |
| | | | SIB3, SIB4, | |
| | | | SIB5, SIB6, | |
| | | | SIB7, SIB8, | |
| | | | SIB9, SIB10, | |
| | | | SIB11, | |
| | | | SIB12, | |
| | | | SIB13, | |
| | | | SIB13.1 | |
| | | | SIB13.2, | |
| | | | SIB13.3, | |
| | | | SIB13.4, | |
| | | | SIB14, | |
| | | | SIB15, | |
| | | | SIB15.1, | |
| | | | SIB15.2, | |
| | | | SIB15.3, | |
| | | | SIB16,, | |
| | | | SIB17, | |
| | | | SIB15.4, | |
| | | | SIB18 <u>.</u> | |
| | | | SIB15.5) | |

9.3.4 Information Elements Definitions

```
__**********************************
-- Information Element Definitions
NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
UNCHANGED TEXT IS REMOVED
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
IB-Type ::= ENUMERATED {
   mIB,
    sB1,
    sB2,
    sIB1,
    sIB2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7.
    sIB8,
    sIB9,
    sIB10,
    sIB11,
    sIB12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14.
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    . . . ,
    sIB17,
    sIB15dot4,
    sIB18,
   sIB15dot5
```

```
3GPP TS 25.433 v4.4.0 (2002-03)
```

```
CR page 5
```

```
}
IndicationType ::= ENUMERATED {
    noFailure,
        serviceImpacting,
    ...
}
```

3GPP TSG-RAN3 #29 Meeting Gyeongju, Korea, 13 – 17 May 2002

| | CHANGE REQ | CR-Form-v3 |
|-------------------------------|---|---|
| ж | 25.433 CR 654 # rev | 2 |
| For HELP on us | sing this form, see bottom of this page or | look at the pop-up text over the ¥ symbols. |
| Proposed change a | ffects: # (U)SIM ME/UE | Radio Access Network X Core Network |
| Title: ♯ | Introduction of SIB 15.5 | |
| Source: # | R-WG3 | |
| Work item code: ₩ | LCS1-UEPos-lublur | Date: 第 May 2002 |
| Category: # | A | Release: # REL-5 |
| | | R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) s can REL-4 (Release 4) REL-5 (Release 5) 5 has been introduced in R99 in RRC. As this |
| | | only for UE-based OTDOA, it should be bw the full support of UE Positioning within |
| Summary of chang | Impact Analysis: Impact assessment towards the prelease): this CR has isolated impersonant (same release). This CR has an impact under the primpact can be considered isolated function, namely the System Information. | revious version of the specification (same act on the previous version of the specification protocol and functional point of view. The because the change affects only one system |
| Consequences if not approved: | # If this CR is not approved, then the 25.433 will remain and it will not be | e inconsistency between TS 25.331 and TS |
| • • | | |
| Clauses affected: | 第 9.2.1.35; 9.3.4 | |
| Other specs affected: | Cher core specifications Test specifications O&M Specifications | TS 25.433 v 4.4.0 CR 653 |
| Other comments: | x | |

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| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---------------|----------|-------|-----------------------|-----------------------|
| IB Type | | | Enumerated | |
| 71 | | | (MIB, SB1, | |
| | | | SB2, SIB1, | |
| | | | SIB2 | |
| | | | SIB3, SIB4, | |
| | | | SIB5, SIB6, | |
| | | | SIB7, SIB8, | |
| | | | SIB9, SIB10, | |
| | | | SIB11, | |
| | | | SIB12, | |
| | | | SIB13, | |
| | | | SIB13.1 | |
| | | | SIB13.2, | |
| | | | SIB13.3, | |
| | | | SIB13.4, | |
| | | | SIB14, | |
| | | | SIB15, | |
| | | | SIB15.1, | |
| | | | SIB15.2, | |
| | | | SIB15.3, | |
| | | | SIB16,, | |
| | | | SIB17, | |
| | | | SIB15.4, | |
| | | | SIB18, | |
| | | | <u>SIB15.5</u>) | |

9.3.4 Information Elements Definitions

```
__**********************************
-- Information Element Definitions
NBAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-IEs (2) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
UNCHANGED TEXT IS REMOVED
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
IB-Type ::= ENUMERATED {
   mIB,
    sB1,
    sB2,
    sIB1,
    sIB2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7.
    sIB8,
    sIB9,
    sIB10,
    sIB11,
    sIB12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14.
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    . . . ,
    sIB17,
    sIB15dot4,
    sIB18,
   sIB15dot5
```

```
3GPP TS 25.433 v5.0.0 (2002-03)
```

```
CR page 5
```

```
}
IndicationType ::= ENUMERATED {
    noFailure,
        serviceImpacting,
    ...
}
```

| Gyeongju, Korea, 13-17 May, 2002 | | | | | | | CR-Form-v3 | | | | | |
|----------------------------------|---|--|---|---|--|----------|-------------|----------------------------------|--|---|---|--------------|
| | | | (| CHAN | GE R | EQ | UE | ST | | | | OK-FOIIII-VS |
| ж | 25.43 | 33 | CR | 674 | ж | rev | 1 | ¥ | Current vers | ion: | 4.4.0 | # |
| For <u>HE</u> | For HELP on using this form, see bottom of this page or look at the pop-up text over the % symbols. | | | | | | | | | | | |
| Proposed of | change aff | fects: | ₩ (U) | SIM | ME/UE | | Radi | io Ac | cess Network | k X | Core Ne | twork |
| Title: | | Definiti informa | | ality figure | s for SF | N-SFN | l and | Tutr | an-gps meas | urem | ent value | |
| Source: | * | R-WG | 3 | | | | | | | | | |
| Work item | code: 🕱 📙 | LCS1- | JEPos-lu | blur | | | | | Date: ૠ | Ma | y 2002 | |
| Category: | * | F | | | | | | | Release: % | RE | L-4 | |
| | D | F (6 A (1 B (1 C (1 D (1 Detailed | essential o correspon Addition o Functional Editorial m explanatio | owing cate correction) ds to a cor f feature), I modification on of the a TR 21.900 | rection in ion of feat n) above cat | ure) | | elease | Use <u>one</u> of 2 R96 R97 R98 R99 REL-4 REL-5 | (GSN (Rele (Rele (Rele (Rele (Rele | ollowing rele M Phase 2) ease 1996) ease 1997) ease 1998) ease 4) ease 5) | eases: |
| Reason for | change: | | | viation is his CR is | | | | | cation, but th biguities | e forr | mula to ca | lculate it, |
| Summary o | of change: | -St | andard d | eviation fo | | | anges | s that | t were not tra | cked | into docur | ment. |
| | | ser Im Im re Th | nantics d npact Ana npact ass lease): nis CR ha lease) be | escription alysis: essment as no impa ecause sta | towards act with tandard d | the pro | eviouevious | indar is vei s ver mula | o the <i>Tutran-c</i> rd deviation. rsion of the spansion of the spansion and and deviate | pecific pecific d this | cation (sar cation (sar s CR clarifi | ne |
| Consequer not approv | | | biguities positioni | | figures | still ex | ists a | nd th | nis may result | t for p | oorer acc | uracy of |
| Clauses af | fected: | ₩ 9. | 2.1.53E, | 9.2.1.64A | l | | | | | | | |
| Other spec | s | ₩ X | | re specifi | | ж | TS | 25.4 | 23v4.4.0 CR6 33v5.0.0 CR6 23v5.0.0 CR6 | 375, | | |
| affected: | | | Test spe | cification | S | | | | | | | |

| | O&M Specifications | |
|-----------------|--------------------|--|
| | | |
| Other comments: | x | |

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- 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.

9.2.1.53E SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--|----------|---|------------------------|---|
| Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information | | 1 <maxnomeasn Cell></maxnomeasn | | |
| >UC-ld | M | | 9.2.1.65B | |
| >SFN-SFN Value | М | | 9.2.1.53F | |
| >SFN-SFN Quality | 0 | | INTEGER(0255) | Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and μ = $E[x]$ is the expectation value of x. |
| >SFN-SFN Drift Rate | M | | INTEGER(- 100+100) | Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
| >SFN-SFN Drift Rate Quality | M | | INTEGER(0. . 100) | Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Measurement Time Stamp | М | | 9.2.1.53D | |
| Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information | | 0 <maxnomeasn Cell-1></maxnomeasn | | |
| >UC-Id | M | | 9.2.1.65B | |

| Range bound | Explanation | | |
|----------------|--|--|--|
| maxnoMeasNCell | Maximum number of neighbouring cells that can be | | |
| | measured on. | | |

9.2.1.64A T_{UTRAN-GPS} Measurement Value Information

The $T_{UTRAN\text{-}GPS}$ Measurement Value Information IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frame for LCS measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------------------|----------|-------|------------------------------|---|
| Tutran-gps | | 1 | | Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [22]. Significant values range from 0 to 37158911999999. |
| >MS | М | | INTEGER (016383) | Most Significant Part |
| >LS | М | | INTEGER (04294967 295) | Least Significant Part |
| Tutran-gps Quality | M | | INTEGER(0. .255) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and μ = $E[x]$ is the expectation value of x. |
| Tutran-gps Drift Rate | M | | INTEGER(- 50+50) | Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock. |
| Tutran-gps Drift Rate Quality | M | | INTEGER(0. .50) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and μ = $E[x]$ is the expectation value of x. |

| CR- | | | | | | CR-Form-v3 | | | |
|---|-----------------------------------|--|--|--|--|--|--|--|-------------|
| CHANGE REQUEST | | | | | | | | | |
| * | 25.433 | CR 6 | 75 # | rev | - # | Current vers | sion: 5. | 0.0 | * |
| For <u>HELP</u> | on using | this form, see b | ottom of this pa | age or le | ook at th | e pop-up text | over the | ₩ syn | nbols. |
| Proposed cha | nge affec | cts: 第 (U)SII | ME/U | E | Radio Ad | ccess Networ | k <mark>X</mark> C | ore Ne | twork |
| Title: | | efinition of qualit | y figures for SF | N-SFN | and Tut | ran-gps meas | surement | value | |
| Source: | ₩ <mark>R-</mark> ' | WG3 | | | | | | | |
| Work item cod | de: ജ <mark>LC</mark> | CS1-UEPos-lubl | ur | | | Date: ₩ | May 20 | 002 | |
| Category: | ⋇ A | | | | | Release: # | REL-5 | | |
| Reason for ch | Deta be fo n ange: 光 | Impact Analyst Impact asses release): This CR has | to a correction in ature), sodification of featification of the above ca 21.900. ation is mention of CR is CR is meant as in SFN-SFN scriptions for comment towards are impact with | ture) tegories ned in the to clarify alculation the presented in the prese | can le specif y any am y IE and ng standa vious ver | R97 R98 R99 REL-4 REL-5 ication, but the higuities to the Tutran ard deviation. ersion of the sersion of the | (GSM Pr (Release (Release (Release (Release (Release -ge formula -gps Qua | nase 2) 1996) 1997) 1998) 1999) 1999) 1990 a to cal | Iculate it, |
| release) because standard deviation formula is known and this CR clarifies and gives reader an idea what kind of formula standard deviation is. Consequences if Ambiguities of quality figures still exists and this may result for poorer accuracy of | | | | | | | | | |
| not approved: | | UE positioning | | | | | | | |
| Clauses affect | ted: # | | | | | | | | |
| Other specs | ** | Other core Test specification O&M Specification | | * | TS25.4 | 33v4.4.0 CR 23v4.4.0 CR 23v5.0.0 CR | 647, | | |
| Other comme | nts: | 3 | | | | | | | |

- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ 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.

9.2.1.53E SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|--|----------|---|------------------------|---|
| Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information | | 1 <maxnomeasn Cell></maxnomeasn | | |
| >UC-Id | M | | 9.2.1.65B | |
| >SFN-SFN Value | М | | 9.2.1.53F | |
| >SFN-SFN Quality | O | | INTEGER(0. .256) | Indicates the standard deviation (std) of the SFN-SFN otd (observed time difference) measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Drift Rate | M | | INTEGER(- 100+100) | Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell. |
| >SFN-SFN Drift Rate Quality | M | | INTEGER(0. . 100) | Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x. |
| >SFN-SFN Measurement Time Stamp | М | | 9.2.1.53D | |
| Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information | | 0 <maxnomeasn Cell-1></maxnomeasn | | |
| >UC-Id | M | | 9.2.1.65B | |

| Range bound | Explanation |
|----------------|--|
| maxnoMeasNCell | Maximum number of neighbouring cells that can be |
| | measured on. |

9.2.1.64A T_{UTRAN-GPS} Measurement Value Information

The $T_{UTRAN\text{-}GPS}$ Measurement Value Information IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frame for LCS measurements.

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|-------------------------------|----------|-------|------------------------------|---|
| Tutran-gps | | 1 | | Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [22]. Significant values range from 0 to 37158911999999. |
| >MS | М | | INTEGER (016383) | Most Significant Part |
| >LS | М | | INTEGER (04294967 295) | Least Significant Part |
| Tutran-gps Quality | M | | INTEGER(0. .255) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ measurements in 1/16 chip. $T_{UTRAN-GPS}$ Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Value, where x is the reported $T_{UTRAN-GPS}$ Value and μ = $E[x]$ is the expectation value of x. |
| Tutran-gps Drift Rate | M | | INTEGER(- 50+50) | Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock. |
| Tutran-gps Drift Rate Quality | M | | INTEGER(0. .50) | Indicates the standard deviation (std) of the $T_{UTRAN-GPS}$ drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and μ = $E[x]$ is the expectation value of x. |