TSG RAN Meeting #17 Biarritz, France, 3 - 6 September, 2002

RP-020473

Title CRs (R'99 and Rel-4/Rel-5 Category A) to TS 25.102

Source TSG RAN WG4

Agenda Item 7.4.3

| RAN4 Tdoc | Spec | CR | R | Cat | Rel | Curr Ver | Title | Work Item |
|-----------|--------|-----|---|-----|-------|-------------|------------------------------------------------------------------------|-----------|
| R4-021124 | 25.102 | 118 | | F | R99 | 3.11.0 | Correction to 3.84 Mcps TDD option downlink power control requirements | TEI |
| R4-021125 | 25.102 | 119 | | Α | Rel-4 | 4.5.0 | Correction to 3.84 Mcps TDD option downlink power control requirements | TEI |
| R4-021126 | 25.102 | 120 | | Α | Rel-5 | 5.1.0 | Correction to 3.84 Mcps TDD option downlink power control requirements | TEI |

3GPP TSR RAN WG4 Meeting #24

affected:

Other comments:

R4-021124

| | | | (| CHAN | GE F | REQ | UE | ST | CR-Fo. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------|--------------------|--------|---------------|-------------------------------------------------------------------------------------------------------------------------------|
| | 25. | 102 | CR | 118 | ж | rev | | ж | Current version: 3.11.0 [#] |
| For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the % symbols. | | | | | | | | | |
| | | | | | _ | | _ | | |
| Proposed change a | affect | s <i>:</i> (| JICC a | apps# | | ME X | Rac | dio A | Access Network Core Network |
| Title: # | Cor | rection | n to 3.8 | 84 Mcps T | TDD opt | tion do | wnlinl | k po | ower control requirements |
| Source: # | RAN | ۱WG | 4 | | | | | | |
| Work item code: ₩ | TEI | | | | | | | | Date: |
| Category: Ж | F | | | | | | | | Release: # R99 |
| A (corresponds to a correction in an earlier release) R96 (R B (addition of feature), R97 (R C (functional modification of feature) R98 (R D (editorial modification) R99 (R Detailed explanations of the above categories can Rel-4 (R be found in 3GPP TR 21.900. Rel-5 (R | | | | | | 2 | | | |
| | | | | | | | | | |
| Reason for change | e: # | requi | o define averaging time to be over one timeslot and to correct performance quirement so it is consitatant with the defined averaging time. The averaging is aligned with the FDD requirement. | | | | | | |
| Summary of chang | ge:♯ | | | <mark>raging tim</mark> timeslot ir | | | the p | erfoi | ormance requirement to be consista |
| Consequences if not approved: | ж | | | time will r cause conf | | | | | currently not consistant with FDD, testing. |
| | | <u>Isola</u> | ted im | pact analy | ysis: | | | | |
| | | mea: This | sured. chang ormand | It does n | ot char affect a | nge sys ny exis | tem p | perfo mple | nich a performance value is ormance or device performance. Iementations, which meet the curre mance requirements have not bee |
| Clauses affected: | * | 8.5.1 | | | | | | | |
| Giauses affected: | - | 0.0.1 | | | | | | | |
| Other specs | مو | YN | Otho | r core spe | cificatio | nne | æ | | |

** Techical support the performance value is given in Tdoc R4-021123. Please see Revised Draft Report of the 23rd 3GPP TSG RAN WG4 meeting (R4-021051)

34.122

Test specifications

X O&M Specifications

and Tdocs R4-020982, and R4-020983 – for additional information on this subject.

Equivalent CRs in other Releases: CR119 cat. A to 25.102 v4.5.0, CR120 cat. A to 25.102 v5.1.0

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.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.

8.5 Power control in downlink

Power control in the downlink is the ability of the UE receiver to converge to the required link quality set by the network while using minimum downlink power.

8.5.1 Minimum requirements

For the parameters specified in Table 8.12 the average-downlink \hat{I}_{or}/I_{oc} averaged over one timeslot shall be below the specified value in Table 8.13 more than 90% of the time. BLER shall be as shown in Table 8.13. Downlink power control is ON during the test.

Table 8.12: Test parameters for downlink power control

| Parameter | Unit | Test 1 | | | |
|----------------------------------------------------------|--------------|--------|--|--|--|
| $\frac{DPCH _E_c}{I_{or}}$ | dB | 0 | | | |
| I_{oc} | dBm/3.84 MHz | -60 | | | |
| Information Data Rate | kbps | 12.2 | | | |
| Target quality value on DTCH | BLER | 0.01 | | | |
| Propagation condition | | Case 1 | | | |
| DL Power Control step size, Δ_{TPC} | dB | 1 | | | |
| Maximum_DL_power * | dB | 0 | | | |
| Minimum_DL_power * | dB | -27 | | | |
| *Note: Refer to TS 25.224 for description and definition | | | | | |

Table 8.13: Requirements for downlink power control

| Parameter | Unit | Test 1 |
|--------------------------|------|---------------------------|
| \hat{I}_{or}/I_{oc} | dB | 8.0 <u>8.5</u> |
| Measured quality on DTCH | BLER | 0.01±30% |

3GPP TSR RAN WG4 Meeting #24

R4-021125

| Helsinki, Finla | and | 12 - | 16 A | ugust 2 | 002 | | | | | | |
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| Title: # | Co | rrection | n to 3.8 | 4 Mcps TD | D option o | downlink | power | control re | quireme | ents | |
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| Clauses affected: | ₩ 8.5.1 |
|-------------------|-----------------------------------------------------------------------------------|
| | YN |
| Other specs | ※ X Other core specifications ※ ** ** ** ** ** ** ** ** |
| affected: | Test specifications 34.122 |
| | X O&M Specifications |
| | |
| Other comments: | # Techical support the performance value is given in Tdoc R4-021123. Please see |
| | Revised Draft Report of the 23 rd 3GPP TSG RAN WG4 meeting (R4-021051) |

and Tdocs R4-020982, and R4-020983 – for additional information on this subject.

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Power control in the downlink is the ability of the UE receiver to converge to the required link quality set by the network while using minimum downlink power.

8.5.1 Power control in downlink, constant BLER target

8.5.1.1 Minimum requirements 3.84 Mcps TDD option

For the parameters specified in Table 8.12 the average downlink \hat{I}_{or}/I_{oc} averaged over one timeslot shall be below the specified value in Table 8.13 more than 90% of the time. BLER shall be as shown in Table 8.13. Downlink power control is ON during the test.

Table 8.12: Test parameters for downlink power control – constant BLER Target (3.84 Mcps TDD option)

| Parameter | Unit | Test 1 | | | |
|----------------------------------------------|-----------------------|----------------|--|--|--|
| $\frac{DPCH _E_c}{I_{or}}$ | dB | 0 | | | |
| I_{oc} | dBm/3.84 MHz | -60 | | | |
| Information Data Rate | kbps | 12.2 | | | |
| Target quality value on DTCH | BLER | 0.01 | | | |
| Propagation condition | | Case 1 | | | |
| DL Power Control step size, Δ _{TPC} | dB | 1 | | | |
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| *Note: Refer to TS 25 | 5.224 for description | and definition | | | |

Table 8.13: Requirements for downlink power control – constant BLER Target (3.84 Mcps TDD option)

| Parameter | Unit | Test 1 |
|--------------------------|------|----------------|
| \hat{I}_{or}/I_{oc} | dB | <u>8.5</u> 8.0 |
| Measured quality on DTCH | BLER | 0.01±30% |

3GPP TSR RAN WG4 Meeting #24

R4-021126

| Helsinki, Fi | nla | nd | 12 - | 16 <i>A</i> | August | 200 | 2 | | | | | | | | | |
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| Clauses affected: | 第 8.5.1 |
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| | YN |
| Other specs affected: | X Other core specifications X Test specifications X O&M Specifications |
| Other comments: | # Techical support the performance value is given in Tdoc R4-021123. Please see Revised Draft Report of the 23 rd 3GPP TSG RAN WG4 meeting (R4-021051) |

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