**3GPP TSG-RAN WG4 Meeting # 94-e-Bis R4-200XXXX**

**Electronic Meeting, 20 – 30 Apr., 2020**

**Agenda item:** 5.3, 6.4.3

**Source:** Moderator (Ericsson)

**Title:** Email discussion summary for [97e][203] LTE RRM maintenance

**Document for:** Information

# Introduction

6 CRs were submitted under the two agenda items excluding shadow CRs. All CRs are related to test cases rather than core requirements. There are no discussion papers and no common issues across multiple CRs were identified by the moderator. Hence the discussion will be arranged by Tdoc with all companies encouraged to provide early feedback on the individual CRs.

*List of candidate target of email discussion for 1st round and 2nd round*

* 1st round: Understand which CRs can be agreed already in first round, collect initial comments identify and CRs that need revision
* 2nd round: Discuss revised CRs with a view to agreeing as much as possible.

# Topic #1: Title

*Main technical topic overview. The structure can be done based on sub-agenda basis.*

## Companies’ contributions summary (excluding cat A CRs)

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company/Title** | **Proposals / Observations** |
| R4-2015879 | Nokia, Nokia Shanghai Bell  CR on performance requirements tests for euCA | Proposes rel16 accuracy tests for early measurement reporting in euCA |
| R4-2015461 | Huawei, HiSilicon  CR on maintaining V2X test cases in TS36.133 R14 | Correct a section reference and PSSCH-RSRP value. |
| R4-2015838 | Ericsson  CR: Correction of eMTC early-OOS/early-IS tests (Rel-14) | Correct the reference numbers.  Removal of [] from the SNR values and test parameters.  Fix TBDs accroding to TS38.133 V15.11.0  Alignment of *numberPRB-Pairs* and *mPDCCH-NumRepetition* |
| R4-2015839 | Ericsson  CR: Correction of eMTC early-OOS/early-IS tests/ Ericsson | Correct the reference numbers.  Removal of [] from the SNR values and test parameters  Alignment of *numberPRB-Pairs* and *mPDCCH-NumRepetition* |
| R4-2016012 | Ericsson  CR 36.133 Correction to test cases for SCell Hibernation (Rel-15) | Correcting table references |
| R4-2016548 | Qualcomm Incorporated  Correction to test parameters for FDD and TDD intra-frequency RSRP for Cat-M1 UE in CEModeA | Correct inconsistency of Es/Iot requirement for target cell in RSRP intra-frequecy tests for UE Cat M1 in CE ModeA vs UE Cat 1bis  Add cell 2 timing offset info for consistency with other tests |

## Open issues summary

*Before e-Meeting, moderators shall summarize list of open issues, candidate options and possible WF (if applicable) based on companies’ contributions.*

Please comment directly on CRs in section 1.3.2

### Sub-topic 1-1

*Sub-topic description:*

*Open issues and candidate options before e-meeting:*

**Issue 1-1: TBA**

* Proposals
  + Option 1: TBA
  + Option 2: TBA
* Recommended WF
  + TBA

## Companies views’ collection for 1st round

### Open issues

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX | Sub topic 1-1:  Sub topic 1-2:  ….  Others: |

### CRs/TPs comments collection

*Major close-to-finalize WIs and Rel-15 maintenance, comments collections can be arranged for TPs and CRs. For Rel-16 on-going WIs, suggest to focus on open issues discussion on 1st round.*

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2015879 | Ericsson: We support to define tests to verify EMR RSRP and RSRQ accuracies under euCA in Rel-16. Test cases also look fine. |
| Huawei: We suggest to define test cases for non-overlapping carriers only. The performance for serving cell and overlapping carriers can be verified to some extent by existing cell reselection test cases. Another question is – do we need to define test for TDD?  Nokia: It is not clear what Huawei is referring to. These tests are for verifying that the RSRP measurement accuracy is within the specified limits. RAN5 was developing the euCA RF testcases for LTE Rel-15, and it was observed that RAN4 specification are missing the necessary accuracy testcases Annex 9.1. Can Huawei clarify? |
| Qualcomm: We understand these test cases are meant to test idle mode CA measurements defined in TS 36.133 section 4.9. The requirements apply for UE supporting *ca-IdleModeMeasurements*, configured in CA mode and are subject to T331 timer configuration. Were these factors considered in the test case definition? Please explain/clarify.  Nokia: These conditions should be included in the test purpose and environment. I can update. |
| R4-2015461 | Qualcomm: One correction in Table A.12.4.1-2: PSSCH-RSRP = -101.81 dB during T1. |
| Company B |
|  |
| R4-2015838 | Huawei: the CR changes the MPDCCH aggregation level and repetition level for some tests. We understand the parameter setting in the existing tests are particularly designed, so they should not be changed unless there is clear technical issue. Moreover, the SNR levels in the tests are dependent on the AL and RL of MPDCCH, and we cannot just change the MPDCCH parameters while leaving the SNR levels unchanged. |
| Qualcomm: We agree with Huawei’s observations about the test parameter changes. The modified settings (MPDCCH aggregation level and repetition level) are not consistent with our understanding of how early in-sync and out-of-sync should be tested. Additionally, we do not agree with the SNR test points proposed for many of the tests. |
|  |
| R4-2015839 | Huawei: same comment as above. |
| Qualcomm: Same comments as for R4-2015838. |
|  |
| 6.R4-2016012 | Company A |
| Company B |
|  |
| R4-2016548 | Moderator (Ericsson) : I noticed that Qualcomm has not reserved a Tdoc for a release 16 cat A CR, which looks to me like it would be needed (since the test exists in rel16 36.133). If this was a mistake in the Tdoc request (I suspect so) no problem, once/if the rel13 CR is agreeable I will request a Tdoc number for the missing cat A CR from the session chair. Session chair can’t give us a CR number but those can be issued by Kai-Erik.  Moderator (Ericsson) : Qualcomm clarified that the cat A CR is R4-2016551 submitted to different AI 6.1.3.2 which was then allocated to #225 email thread. I proposed to Andrey that the cat A CR would be moved to this thread so that the status can be updated accordingly once we have an outcome for the cat F CR |
| Huawei: The reason for change is not very clear to us. In the cover sheet, it states that side condition for UE Cat M1 as specified in TS 36.133 Table B.1.3-1 is ≥-6dB. In this sense, the Es/Iot levels in the current test cases are correct (aligned with the side condition). Maybe we missed some point here, and some clarification would be helpful. |
| Company B |

## Summary for 1st round

### Open issues

See conclusions for CRs in section 1.4.2

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provides recommendation on CRs/TPs Status update*

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| R4-2015879  (R16 cat F CR) |  |
| R4-2015461 (R14 cat F) |  |
| R4-2015462  (R15 shadow of R4-201541) |  |
| R4-2015463  (R16 shadow of R4-201541) |  |
| R4-2015838 (R14 cat F) |  |
| R4-2015839 (R15 cat F) |  |
| R4-2015840 (R16 shadow of R4-2015839) |  |
| R4-2016012 (Rel15 cat F) |  |
| R4-2016013 (R16 shadow of R4-2016012 |  |
| R4-2016548 (R13 cat F) |  |
| R4-2016549 (R14 shadow of R4-2016548) |  |
| R4-2016550 (R15 shadow of R4-2016548) |  |
| R4-2016551 (R16 shadow of R4-2016548) |  |

## Discussion on 2nd round (if applicable)

## Summary on 2nd round (if applicable)

*Moderator tries to summarize discussion status for 2nd round and provided recommendation on CRs/TPs/WFs/LSs Status update suggestion*

|  |  |
| --- | --- |
| **CR/TP/LS/WF number** | **T-doc Status update recommendation** |
| XXX | *Based on 2nd round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |