**[99-e][212] LTE_NR_DC_CA_RRM_1_NWM - Version 0.0.4**
**RAN4**

# 1 Introduction

*Briefly introduce background, the scope of this email discussion (e.g. list of treated agenda items) and provide some guidelines for email discussion if necessary.*

*Only 1 document has been submitted for discussion founder agenda items 6.4.1.1 and 6.4.2.1:*

*- R4-2111277, Draft CR for Idle Mode measurements of inter-RAT CA candidate cells for early reporting (TC#3), Nokia, Nokia Shanghai Bell*

And two resubmission of two endorsed CRs:

- R4-2110856, CR on LTE-NR EMR requirements 36133, Huawei, HiSilicon

- R4-2110858, CR on EMR requirements correction 38133, Huawei, HiSilicon

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

1st round: Discuss test case layout as in proposed in *R4-2111277*

2nd round: TBA

# 2 Topic #1: Test case description and table layout

## 2.1 Companies' contributions summary

**Table 1: 1.1 Companies' contributions summary**

| T-doc number | Company | Proposals / Observations |
|---|---|---|
| R4-2111277 | Nokia, Nokia Shanghai Bell | Proposal 1: This is a CR proposing, based on test equipment vendors input in RAN4#98bis, how to split the tables to accommodate the testing of the measurement accuracy in the test case. |
| R4-2110856 | Huawei, HiSilicon | CR on LTE-NR EMR requirements 36133 |
| R4-2110858 | Huawei, HiSilicon | CR on EMR requirements correction 38133 |

## 2.2 Open issues summary

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

### 2.2.1 Sub-topic 1-1

*Sub-topic description:*

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

*- Test case layout and table splitting to accommodate the testing of the measurement accuracy.*

Recommended WF:

- Companies to comment on the CR directly in section 1.3.2

## 2.3 Companies views' collection for 1st round

### 2.3.1 Open issues

*One of the two formats, i.e. either example 1 or 2 can be used by moderators.*

### 2.3.2 CRs/TPs comments collection

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

**Table 2: 1.3.2 CRs/TPs comments collection**

| Ref | **CR/TP number** | **Company** | **Comments collection** |
|---|---|---|---|
| #1 | R4-2111277 | Nokia, Nokia Shanghai Bell | CR title: *Draft CR for Idle Mode measurements of inter-RAT CA candidate cells for early reporting (TC#3)* |
| #2 | R4-2110856 | Huawei, HiSilicon | CR on LTE-NR EMR requirements 36133 (endorsed in RAN4#98bis) |
| #3 | R4-2110858 | Huawei, HiSilicon | CR on EMR requirements correction 38133 (endorsed in RAN4#98bis) |

**Feedback Form 1: CRs/TPs comments collection**

**1 – Nokia Corporation**

Example:

#1: company comment

#2:

#3:

**2 – Apple GmbH**

Apple:

#1: seems in R4-2111277 different Noc/RSRP/Io would be configured for different band. Usually this is used to verify the accuracy performance at the edge of Io. However, as mentioned in our contribution in the last meeting R4-2104859, this is not necessary. We have similar EMR accuracy requirement and corresponding test case in LTE. Note that in LTE tests we don't check the performance at the edge of the Io and we don't see any issue with that.

#2, #3: endorsed in last meeting. no comments.

**3 – Anritsu Corporation**

#1: It seems that the same contents from the original CR (R4-2106390) at the last meeting was submitted, even not the revised one (R4-2105737). So we'd like to copy the same comment from the last meeting below. If it is necessary to agree with the values first, then we are ok to accept a revised CR (in this meeting) after values have been corrected based on our previous comments and also from the outcome of this meeting.

And try to re-structure tables at the August meeting can be the next step.

–Extract comments from the last meeting –

a) It is very confusing to have T1, T2 and T5 in one table, and T3, T4 in another table. If the information on both Cell 1 and Cell 2 for T1..T5 is too much in one table, suggest a split with one table for Cell 1 and another table for Cell 2.

b) In several tables Cell 2 Noc/15kHz is stated twice, once with a fixed value of -98dBm/15kHz and again with band-dependent values, which is a contradiction. To meet the test purpose, it is probably not necessary to use band-dependent values. One fixed value may be OK, and is much simpler.

c) It is not clear why Cell 1 needs different Noc values of -98dBm/15kHz during T1, T2, T5 and -102dBm/15kHz during T3, T4. Could this be simplified to a constant -98dBm/15kHz during T1..T5?

d) The derived parameters need to be re-evaluated when issues a) b) and c) are resolved.

**4 – HuaWei Technologies Co.**

#1: In general the CR is fine, but some comments/questions from our side on the parameter tables:

a. Title of Table 3 should be changed because it does not include parameters for the NR cell.

b. Shall we combine Table 2 and Table 4 because they are both for general parameters? For example, T3 and T4 are defined in both tables (slightly different).

c. It seems there are two sub-tests (Test 1 and Test 2), but the test parameters are same and there are two Table 5. In our view a single sub-test should be sufficient.

**5 – Nokia Corporation**

@Apple: As discussed in the GTW we are fine to take a look at what we have done in LTE and apply same. In LTE we do have TCs for measurement accuracies but in separate tests (which we now incorporate into one test as agreed).

@Anritsu: We did try to update the TC description according to your comments in last meeting (or something went wrong in the editing).

a: Agree that it is bit confusing and atypical. Reason for having the timers as they are is that UE start in connected mode (T1&T2) and then enters idle and finally entering connected again (T5). If it helps we can remove the T5 from parameter tables where T1 and T2 are and have separate table for T5? I might have misunderstood your initial comments about splitting table - sorry about that.

@Huawei: a: will be corrected. b: Combining general parameters into one table is a good suggestion. c: the actual test parameters are to be updated once we have the table layout and content in place - hopefully that is ok.

We can provide a proposed update based on this feedback and share.

## 2.4 Summary for 1st round

### 2.4.1 Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

### 2.4.2 CRs/TPs

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

*Note: The tdoc decisions shall be provided in Section 3 and this table is optional in case moderators would like to provide additional information.*

**Table 3: CRs/TPs Status update recommendation**

| CR/TP number | CRs/TPs Status update recommendation |
|---|---|
| R4-2111277 | to be revised |
| R4-2110856 | Agreeable (endorsed CR on LTE-NR EMR requirements 36133 in RAN4#98bis) |
| R4-2110858 | Agreeable (endorsed CR on EMR requirements correction 38133 in RAN4#98bis) |

## 2.5 Discussion on 2nd round

### 2.5.1 Open issues

3 Issues are open for discussion in the 2nd round:

1) The endorsed BigCR from RAN4#98bis was not submitted for RAN4#99 but has been allocated TDcoc and CR for 2nd round comments and approval. The CR R4-2108182 is available in the Inbox.

2) Additionally, the discussion related to drafting and revision of CR: Draft CR for Idle Mode measurements of inter-RAT CA candidate cells for early reporting (TC#3) in R4-2111277 continue in 2nd round

3) The endorsed BigCR from RAN4#98bis was not treated in 1st round and should be treated in 2nd round. It is R4-2110860.

### 2.5.2 CRs comments collection

**Table 4: CR collection 2nd round**

| ref | Tdoc | Company | Comment |
|---|---|---|---|
| #1 | R4-2108182 | Nokia | Big CR: Introduction of Rel-16 MR-DC EMR RRM performance requirements (TS 38.133) |
| #2 | | Nokia, Nokia Shanghai Bell | CR title: Draft CR for Idle Mode measurements of inter-RAT CA candidate cells for early reporting (TC#3 |
| #3 | R4-2110860 | Huawei, HiSilicon | Big CR: Introduction of Rel-16 MR-DC EMR RRM performance requirements (TS 36.133) |

**Feedback Form 2: CRs/TPs comments collection**

| **1 – Nokia Corporation** |
|---|
| Example:<br>#1: company comment<br>#2:<br>#3: |

# 3 Recommendations for Tdocs

## 3.1 1st round

**New tdocs:**

**Table 5: New Tdoc's needed**

| **Title** | **Source** | **Comments** |
|---|---|---|
| | | |

**Existing tdocs:**

**Table 6: Status of existing Tdoc's**

| **Tdoc number** | **Title** | **Source** | Agreeable, Revised, Merged, Postponed, Not Pursued | **Comments** |
|---|---|---|---|---|
| R4-2111277 | Draft CR for Idle Mode measurements of inter-RAT CA candidate cells for early reporting (TC#3) | Nokia, Nokia shanghai Bell | Revised | |
| R4-2110856 | CR on LTE-NR EMR requirements 36133 | Huawei, HiSilicon | Agreeable | |
| R4-2110858 | CR on EMR requirements correction 38133 | Huawei, HiSilicon | Agreeable | |