**3GPP TSG-RAN WG4 Meeting # 100-e R4-210xxxx**

**Electronic Meeting, 16th – 27th August, 2021**

**Agenda item:** 5.2.2.2, 6.2.2

**Source:** Moderator (vivo)

**Title:** Email discussion summary for [100-e][106] LTE\_Maintenance\_R15\_16

**Document for:** Information

# Introduction

This email thread covers LTE maintenance of Rel-15 and Rel-16 for UE RF requirements with agenda items:

* 5.2.2.2
* 6.2.2

The following contribution is also treated in this email thread:

* R4-2114237 from Agenda 12.2

List of topics:

* Topic 1: Band Related
* Draft CR: Correction for CA\_66 coexistence
* Draft CR: removal of BCS1 for CA\_5B
* Draft CR: Addition of UE co-existence requirements for Band 40
* Topic 2: NB-IoT:
  + [Draft] LS on NB-IoT testing issues
* Draft CR on Correction on operating bands for NB-IoT in the USA (Rel-14)
* Topic 3: Other:
* Draft CR: correction of Pcmax for LTE V2X (Rel-14)
  + Draft CR MPR and AMPR for LTE CA 256QAM PC2

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

* 1st round:
  + Collect comments for the draft CRs and draft LSs
  + Allocate Tdocs for CatA CRs / revised F CRs / draft LS
* 2nd round:
  + Revise draft CRs/LS and seeking endorsement

# Topic #1: Band Related

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

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2112354**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112354.zip) | Apple | **draftCR for TS 36-101 Rel-15: Correction for CA\_66 coexistence**  Reason for change:  The protected band list for single bands and for intra-band carrier aggregation should be equal as the emission requirements for single and intra-band do not change. In case of CA\_66 we found that bands b49 and b52 are added to the list (compared to single b66). Testing for b49 and b52 region to meet the -50dBm/MHz limit creates an unecessary burden, especiall as they are not used in the field. Therefore, we propose to remove them from the lis  Summary of change:  Removed b49 and b52 from protected band list of CA\_66 |
| R4-2112355 | Apple | draftCR for TS 36-101 Rel-16: Correction for CA\_66 coexistence |
| R4-2112356 | Apple | draftCR for TS 36-101 Rel-17: Correction for CA\_66 coexistence |
| [**R4-2112386**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112386.zip) | Apple | **draftCR to 36.101 on removal of BCS1 for CA\_5B**  Reason for change:  The configuration CA\_5B was introduced to the Rel-14 specification with BCS0 and BCS1 according to the operator requests in RP-161473 (WID on LTE Advanced intra-band CA Rel-14 for xDL/yUL including contiguous and non-contiguous spectrum). The aggregate BW of BCS1 of this configuration is 8 MHz (3+5 MHz). However, RAN4 did not complete the specification of RF requirements for BCS1 with this configuration: REFSENS requirements for 3+5 MHz are missing, SEM requirements for 3+5 MHz are missing, etc.  Summary of change:  Remove BCS1 from the CA\_5B configuration in Table 5.6A-1-1 |
| R4-2112387 | Apple | draftCR to 36.101 on removal of BCS1 for CA\_5B |
| R4-2112388 | Apple | draftCR to 36.101 on removal of BCS1 for CA\_5B |
| R4-2112389 | Apple | draftCR to 36.101 on removal of BCS1 for CA\_5B |
| [**R4-2112629**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112629.zip) | NTT DOCOMO, INC. | **draft CR to TS36.101[R13] Addition of UE co-existence requirements for Band 40**  Reason for change:  We submitted CRs to add co-existence requirements between Band 40 and Japan bands and they are agreed at the last RAN4 meeting. However, some agreed requirements are not reflected in the specifications, so we request again.  Summary of change:  Based on the R4-2109161 agreed in RAN4#99-e, the following requirement will be added.   Co-existence requirements from CA\_19A-21A to Band 40 |
| [**R4-2112630**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112630.zip) | NTT DOCOMO, INC. | draft CR to TS 36.101[R14]: Addition of UE co-existence requirements for band 40  Reason for change:  We submitted CRs to add co-existence requirements between Band 40 and Japan bands and they are agreed at the last RAN4 meeting. However, some agreed requirements are not reflected in the specifications, so we request again.  Summary of change:  Based on the R4-2109161 agreed in RAN4#99-e, the following requirement will be added.   Co-existence requirements from CA\_3A-19A to Band 40   Co-existence requirements from CA\_3C to Band 40 |
| [**R4-2112631**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112631.zip) | NTT DOCOMO, INC. | draft CR to TS 36.101[R15]: Addition of UE co-existence requirements for band 40  Reason for change:  We submitted CRs to add co-existence requirements between Band 40 and Japan bands and they are agreed at the last RAN4 meeting. However, some agreed requirements are not reflected in the specifications, so we request again.  Summary of change:  Based on the R4-2109161 agreed in RAN4#99-e, the following requirement will be added.     Co-existence requirements from intra-band CA\_40 to PHS system |

## Open issues summary

Void

*Moderator’s note: Not necessary since all the discussion for this topic would be in section 1.3.2.*

## Companies views’ collection for 1st round

### Open issues

Void

*Moderator’s note: Not necessary since all the discussion for this topic would be in section 1.3.2.*

### 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.*

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| [**R4-2112354**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112354.zip)  **R4-2112355**  **R4-2112356**  (draftCR for TS 36-101 Rel-15: Correction for CA\_66 coexistence) | Company A |
| Company B |
|  |
| [**R4-2112386**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112386.zip)  **R4-2112387**  **R4-2112388**  **R4-2112389**  (draftCR to 36.101 on removal of BCS1 for CA\_5B) |  |
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| [**R4-2112629**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112629.zip)  (draft CR to TS36.101[R13] Addition of UE co-existence requirements for Band 40) |  |
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| [**R4-2112630**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112630.zip)  (draft CR to TS 36.101[R14]: Addition of UE co-existence requirements for band 40) |  |
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| [**R4-2112631**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112631.zip)  (draft CR to TS 36.101[R15]: Addition of UE co-existence requirements for band 40) |  |
|  |
|  |

## Summary for 1st round

### Open issues

Void

*Moderator’s note: Not necessary.*

### 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.*

*Moderator’s note: No comments for all the CRs and they would be endorsed.*

*Apple only provide Cat F CR so new numbers for Cat A are proposed and they should be supplemented in the 2nd round.*

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| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| XXX | *Based on 1st round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |
| [**R4-2112354**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112354.zip) | Endorsed |
| R4-2112355 | Endorsed |
| R4-2112356 | Endorsed |
| [**R4-2112386**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112386.zip) | Endorsed |
| R4-2112387 | Endorsed |
| R4-2112388 | Endorsed |
| R4-2112389 | Endorsed |
| [**R4-2112629**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112629.zip) | Endorsed |
| [**R4-2112630**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112630.zip) | Endorsed |
| [**R4-2112631**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112631.zip) | Endorsed |

## Discussion on 2nd round (if applicable)

Not needed.

# Topic #2: NB-IoT

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

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2112241**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112241.zip) | Qualcomm Incorporated, T-Mobile USA | **Draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-14)**  Reason for change:  CR for 36.101 to introduce NS Signalling for NB-IoT in the USA was agreed in RAN4#99e. But the frequency range for upper edge of B66 is not correct. The upper edge of B66 should be 2199.9 MHz  Summary of change:  Corrected the upper edge of band 66 in Table 5.5F-1. |
| R4-2112242 | Qualcomm Incorporated | Mirror draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-15) |
| R4-2112243 | Qualcomm Incorporated | Mirror draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-16) |
| R4-2112244 | Qualcomm Incorporated | Mirror draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-17) |
| **[R4-2114237](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114237.zip)** | T-Mobile USA | **Draft LS to RAN5, PTCRB and CPWG on NB-IoT testing**  **1. Background information:**  In August of 2020 RAN4 sent an LS to the FCC asking for guidance on NB-IoT testing issues near the edges of bands [1]. RAN4 received indirect feedback from the FCC on NB-IoT testing in [2]. RAN4 subsequently agreed CRs to solve the NB-IoT testing issue in Rel-14 [3], Rel-15 [4], Rel-16 [15] and Rel-17 [16]. The changes are summarized in the following table for NB-IoT operation in the USA, and especially that the lowest 100 kHz of Band 12 and Band 13 are not excluded for NB-IoT operation in the USA:  **Table 5.5F-1 E-UTRA operating bands for NB-IoT in the USA**   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **E‑UTRA Operating Band** | **Uplink (UL) operating band BS receive UE transmit** | | | **Downlink (DL) operating band BS transmit  UE receive** | | | **Duplex Mode** | | **FUL\_low – FUL\_high** | | | **FDL\_low – FDL\_high** | | | | 2 | 1850.1 MHz | – | 1909.9 MHz | 1930.1 MHz | – | 1989.9 MHz | FDD | | 4 | 1710.1 MHz | – | 1754.9 MHz | 2110.1 MHz | – | 2154.9 MHz | FDD | | 5 | 824.1 MHz | – | 848.9 MHz | 869.1 MHz | – | 893.9MHz | FDD | | 12 | 699 MHz | – | 715.9 MHz | 729 MHz | – | 745.9 MHz | FDD | | 13 | 777 MHz | – | 786.9 MHz | 746 MHz | – | 755.9 MHz | FDD | | 17 | 704.1 MHz | – | 715.9 MHz | 734.1 MHz | – | 745.9 MHz | FDD | | 25 | 1850.1 MHz | – | 1914.9 MHz | 1930.1 MHz | – | 1994.9 MHz | FDD | | 26 | 814.1 MHz | – | 848.9 MHz | 859.1 MHz | – | 893.9 MHz | FDD | | 66 | 1710.1 MHz | – | 1779.9 MHz | 2110.1 MHz | – | 2199.0 MHz | FDD4 | | 71 | 663.1 MHz | – | 697.9 MHz | 617.1 MHz | – | 651.9 MHz | FDD | | 85 | 698.1 MHz | – | 715.9 MHz | 728.1 MHz | – | 745.9 MHz | FDD |   Please note that 2199.0 MHz for B66 is an error. It should be 2199.9 MHz. This is being corrected.   1. **Summary**   TS 36.101 has been updated to exclude 100 kHz at the edge of NB-IoT bands for operation in the USA, except for the lower edge of Band 12 and Band 13 which are not excluded.   1. **Actions:**   **To** **RAN5, PTCRB and CTIA CPWG,**  **ACTION:** RAN4 kindly asks RAN5, PTCRB and CPWG to take the above into consideration for NB-IoT testing. |

## Open issues summary

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

### Sub-topic 2-1

*Sub-topic description:*

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

**Issue 2-1: Whether LS should be sent based on R4-2114237 and how what revisions should be made**

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

## Companies views’ collection for 1st round

### Open issues

Sub topic 2-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| T-Mobile USA | Issue 2-1: Option 1. Obviously we support the LS. We were advised by RAN4, PTCRB and CPWG that this would be helpful. |
| Sony | Issue 2-1: Option 1. Thank you, T-Mobile, for driving this. We think it is essential that the new test frequencies are applied as soon as possible, and we think the LS may be a way to do that. However, we have some comments: Isn’t the NS\_04 signaling key to apply the new tests frequencies, and should therefore be mentioned in the LS? Secondly, we have a question about frequency range of B66, please see below. |
| Qualcomm | Issue 2-1: we support option 1 to align among 3GPP, PTCRB and CTIA. |
| Huawei | Option 1. A question for clarification: it seems the NB-IoT devices are only tested against 3GPP band edges in Table 5.5F-1. How can a UE meet the FCC emission requirements if the FCC band edge is within the 3GPP band? The example case in question can be 700MHz A/C block as pointed out in the paper.  <Update>: I’d like to withdraw my question above. Just realised that the FCC block edge is lower than B12/13. There would be no problem for 3GPP compliant UEs to pass the FCC requirements, unless the operators want to utilise the extra 1MHz. |

### 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** |
| [**R4-2112241**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112241.zip)  **R4-2112242**  **R4-2112243**  **R4-2112244**  (Draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-14)) | T-Mobile USA: We support the draft CR. We apologize for the typo in Table 5.5F-1. |
| Sony: Thank you, T-Mobile for the hard work. We have one question though: Does the upper 20MHz of B66 apply to NB-IOT? NOTE4 in Table 5.5-1 (TS36.101) says: “The range 2180-2200 MHz of the DL operating band is restricted to E-UTRA operation when carrier aggregation is configured.” But CA is not defined for NB-IOT? |
| To Sony: Thanks for the comments. We think NOTE4 in Table 5.5-1 (TS36.101) only applies for mobiles. For NB-IoT, there should be no restriction. See the Clause 5.5F in TS36.010:  “Category NB1 and NB2 are designed to operate in the E-UTRA operating bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 21, 25, 26, 28, 31, 41, 42, 43, 65, 66, 70, 71, 72, 73, 74, 85, 87 and 88 which are defined in Table 5.5-1.”  Qualcomm: <Update>. We think Sony’s comments are valid. We can provide a revision with the following change:   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | 66 | 1710.1 MHz | – | 1779.9 MHz | 2110.1 MHz | – | ~~2199.9~~ 2179.9 MHz | FDD | |

## Summary for 1st round

### 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.*

|  |  |
| --- | --- |
|  | **Status summary** |
| **Sub-topic#2-1** | *Tentative agreements: An LS would be prepared. CR for 36.101 for Correction on operating bands for NB-IoT in the USA would need to be updated.*  *Candidate options:*  *Recommendations for 2nd round: Discuss and confirm LS and relating CR, including Cat A.* |

### CRs/TPs

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

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| XXX | *Based on 1st round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |
| [**R4-2112241**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112241.zip) | To be revised |
| R4-2112242 | Cat A CR. Returned in 2nd round |
| R4-2112243 | Cat A CR. Returned in 2nd round |
| R4-2112244 | Cat A CR. Returned in 2nd round |

## Discussion on 2nd round (if applicable)

*Moderator can provide summary of 2nd round here. Note that recommended decisions on tdocs should be provided in the section titled ”Recommendations for Tdocs”.*

*Discuss CR R4-2114896 (revision of CR R4-2112241) and LS R4-2115077(revision of LS R4-2114237) in the main Email thread, since they are these are only remaining topics.*

# Topic #3: Others

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

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2114091**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114091.zip) | Huawei, HiSilicon | **Draft CR MPR and AMPR for LTE CA 256QAM PC2**  Reason for change:  The MPR for PC2 256QAM and the A-MPR for CA\_NS\_04 256QAM PC2 are still FFS in the spec. The Cat F CR has been approved in R4-2108110.  Summary of change:  The MPR/A-MPR values are fulfilled based on simulation results and meeting discussions. |
| [**R4-2114524**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114524.zip) | Huawei, HiSilicon | **draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-14)**  Reason for change:  It is clarified in the specification that “For QPSK the MPR requirements specified in subclause 6.2.3G does not apply, i.e. MPR = 0dB. For 16QAM and 64 QAM, the applied maximum output power reduction is obtained by taking the maximum value of MPR requirements specified in subclause 6.2.3G and A-MPR requirements specified in subclause 6.2.4G.” Which means the power back off in formula of Pcmax is MAX(MPR, A-MPR) rather than MAX(MPR+A-MPR).  Summary of change:  Change the power back in Pcmax formula from MAX(MPR*c* + A-MPR*c*) to MAX(MPR*c* , A-MPR*c*) to align with the clarification in the specification. |
| R4-2114525 | Huawei, HiSilicon | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-15) |
| R4-2114526 | Huawei, HiSilicon | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-16) |
| R4-2114527 | Huawei, HiSilicon | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-17) |

## Open issues summary

Void

*Moderator’s note: Not necessary since all the discussion for this topic would be in section 3.3.2.*

## Companies views’ collection for 1st round

### Open issues

Void

*Moderator’s note: Not necessary since all the discussion for this topic would be in section 3.3.2.*

### 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** |
| [**R4-2114091**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114091.zip)  (Draft CR MPR and AMPR for LTE CA 256QAM PC2) | Moderator’s Note: It is a Cat A CR and the Cat F was approved in R4-2108110 in last RAN4 meeting. |
| Company B |
|  |
| [**R4-2114524**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114524.zip)  **R4-2114525**  **R4-2114526**  **R4-2114527**  (draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-14)) | Qualcomm: The change might lead UE to fail the test since the legacy devices were tested with assumption of MPR+A-MPR. Changing the equation means legacy devices have to pass the test with a lower, i.e., Max (AMPR, MPR). We suggest postponing the CR to next meeting so companies could have time to check the feasibility. |
| Huawei: the requirements of A-MPR in the Pcmax formula is not aligned with the description in the spec below. But we are ok to let companies have more time to check the inconsistency of the requirements. |
|  |

## Summary for 1st round

### Open issues

Void

*Moderator’s note: Not necessary.*

### CRs/TPs

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

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| XXX | *Based on 1st round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |
| [**R4-2114091**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114091.zip) | *Endorsed.*  *This is Cat A and Cat F CR has been approved in R4-2108110 in last meeting.* |
| [**R4-2114524**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114524.zip)  **R4-2114525**  **R4-2114526**  **R4-2114527** | *Postponed.*  *P*ostponing to next meeting so companies could have time to check the feasibility |

## Discussion on 2nd round (if applicable)

*Moderator can provide summary of 2nd round here. Note that recommended decisions on tdocs should be provided in the section titled ”Recommendations for Tdocs”.*

Not needed.

# Recommendations for Tdocs

## 1st round

**New tdocs**

|  |  |  |
| --- | --- | --- |
| **Title** | **Source** | **Comments** |
| LS on NB-IoT testing issues | RAN WG4 | To: RAN WG5, PTCRB, CTIA CPWG  Cc: |

**Existing tdocs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-210xxxx | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| [**R4-2112354**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112354.zip) | draftCR for TS 36-101 Rel-15: Correction for CA\_66 coexistence | Apple | Endorsed | *Cat F* |
| R4-2112355 | draftCR for TS 36-101 Rel-16: Correction for CA\_66 coexistence | Apple | Endorsed |  |
| R4-2112356 | draftCR for TS 36-101 Rel-17: Correction for CA\_66 coexistence | Apple | Endorsed |  |
| [**R4-2112386**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112386.zip) | draftCR to 36.101 on removal of BCS1 for CA\_5B | Apple | Endorsed | *Cat F* |
| R4-2112387 | draftCR to 36.101 on removal of BCS1 for CA\_5B | Apple | Endorsed |  |
| R4-2112388 | draftCR to 36.101 on removal of BCS1 for CA\_5B | Apple | Endorsed |  |
| R4-2112389 | draftCR to 36.101 on removal of BCS1 for CA\_5B | Apple | Endorsed |  |
| [**R4-2112629**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112629.zip) | draft CR to TS36.101[R13] Addition of UE co-existence requirements for Band 40 | NTT DOCOMO, INC. | Endorsed |  |
| [**R4-2112630**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112630.zip) | draft CR to TS 36.101[R14]: Addition of UE co-existence requirements for band 40 | NTT DOCOMO, INC. | Endorsed |  |
| [**R4-2112631**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112631.zip) | draft CR to TS 36.101[R15]: Addition of UE co-existence requirements for band 40 | NTT DOCOMO, INC. | Endorsed |  |
| [**R4-2112241**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112241.zip) | Draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-14) | Qualcomm Incorporated, T-Mobile USA | Revised | *Cat F*  *Cat A is pending for 2nd round* |
| [**R4-2114091**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114091.zip) | Draft CR MPR and AMPR for LTE CA 256QAM PC2 | Huawei, HiSilicon | Endorsed | *Cat A*  Cat F CR has been approved in R4-2108110 in last meeting. |
| [**R4-2114524**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2114524.zip) | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-14) | Huawei, HiSilicon | Postponed | postponing to next meeting so companies could have time to check the feasibility |
| R4-2114525 | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-15) | Huawei, HiSilicon | Postponed |  |
| R4-2114526 | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-16) | Huawei, HiSilicon | Postponed |  |
| R4-2114527 | draft CR for TS 36.101 correction of Pcmax for LTE V2X (Rel-17) | Huawei, HiSilicon | Postponed |  |

Notes:

1. Please include the summary of recommendations for all tdocs across all sub-topics incl. existing and new tdocs.
2. For the Recommendation column please include one of the following:
   1. CRs/TPs: Agreeable, Revised, Merged, Postponed, Not Pursued
   2. Other documents: Agreeable, Revised, Noted
3. For new LS documents, please include information on To/Cc WGs in the comments column
4. Do not include hyper-links in the documents

## 2nd round

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-2114895 | LS on NB-IoT testing issues | RAN WG4 | Agreeable |  |
| **R4-2114896** | Draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-14) | Qualcomm Incorporated, T-Mobile USA | Agreeable |  |
| R4-2112242 | Mirror draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-15) | Qualcomm Incorporated | Agreeable |  |
| R4-2112243 | Mirror draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-16) | Qualcomm Incorporated | Agreeable |  |
| R4-2112244 | Mirror draft CR for 36.101: Correction on operating bands for NB-IoT in the USA (Rel-17) | Qualcomm Incorporated | Agreeable |  |

Notes:

1. Please include the summary of recommendations for all tdocs across all sub-topics.
2. For the Recommendation column please include one of the following:
   1. CRs/TPs: Agreeable, Revised, Merged, Postponed, Not Pursued
   2. Other documents: Agreeable, Revised, Noted
3. Do not include hyper-links in the documents

# Annex

Contact information

|  |  |  |
| --- | --- | --- |
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Note:

1. Please add your contact information in above table once you make comments on this email thread.
2. If multiple delegates from the same company make comments on single email thread, please add you name as suffix after company name when make comments i.e. Company A (XX, XX)