**3GPP TSG-RAN WG4 Meeting # 100-e R4-211XXXX**

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

**Agenda item:** 6.1.1.1, 6.1.1.2, 6.1.10.2

**Source:** Moderator (Qualcomm Incorporated)

**Title:** Email discussion summary for [100-e][103] NR\_Maintenance\_R16\_Part\_1

**Document for:** Information

# Introduction

This document summarizes the email discussion for the following agenda items

6.1.1.1 NR-U System parameter

6.1.1.2 NR-U UE RF requirements

6.1.10.2 TEI UE RF requirements

The following contribution has been moved to thread 127.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 6.1.10.2 ->  9.3.2.7.2 | UE RF requirements | R4-2113890 | R16 discussion on SCC drop | OPPO |

# Topic #1: NR-U maintenance

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

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2111839**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2111839.zip) | Charter Communications, Inc | Draft CR: Delete CA configurations with n46E  Delete CA configurations with n46E  Delete CA configurations CA\_n46E-n48A, CA\_n46E-n48B, CA\_n46E-n48C  n46E CA configurations are in error and can cause implementation issues |
| [**R4-2111842**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2111842.zip) | Charter Communications, Inc | Draft CR: Add n96 to Table 6.5.3.2-1  Add n96 to Table 6.5.3.2-1  Add n96 to Table 6.5.3.2-1: Requirements for spurious emissions for UE co-existence  n96 requirements for co-existence with protected bands will not be specified |
| [**R4-2113434**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113434.zip) | Huawei, HiSilicon | Draft CR for 38.101-1 to clarify fallback group for bandwidth class  Fallback group 3 introduced in previous RAN4 meeting is only applicable to bands identified for use with shared spectrum channel access. However, the specifications didn’t clarify this point clearly. It will cause some ambiguties and NBC issue from network perspective for licensed bands. For example, when UE report bandwidth class C in band n41, it’s unclear whether it supports class B. It’s necessary to clarify it in the spec.  1. To clarify that fallback group 3 introduced in previous RAN4 meeting is only applicable to bands identified for use with shared spectrum channel access..  It’s unclear whether fallback group 3 is only applicable to bands identified for use with shared spectrum channel access. |

## 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 1-1 Draft CR R4-2111839 Delete CA configurations with n46E

CA configurations with Band n46E are not needed, apparently. It may be necessary to first justify and agree at RAN plenary to remove unnecessary band combinations since band combinations are first agreed at RAN plenary due to deployment needs. RAN4 should not remove them without RAN’s approval.

Moderator’s note: There are several cover sheet errors.

* Proposals
  + Can RAN4 remove band combinations without RAN approval?
* Recommended WF
  + Submit request to RAN plenary with justification as why n46E combinations are not needed. If agreed, it can be added to basket work item?

### Sub-topic 1-2 Draft CR R4-2111842 Add UE coex for n96

UE coexistence for Band n96 is added for US bands.

Moderator note: There are several cover sheet errors.

* Proposals
  + Are UE coexistence requirements for Band n96 needed?
  + If so, are the listed bands in R4-2111842 correct/complete?
* Recommended WF
  + TBA

### Sub-topic 1-3 Draft CR R4-2113434 Clarify fallback group

Fallback group 3 should be limited to shared spectrum band combinations.

* Proposals
  + Are the clarifications in R4-2113434 needed and acceptable?
* Recommended WF
  + TBA

## Companies views’ collection for 1st round

### Open issues

Sub topic 1-1 Draft CR R4-2111839 Delete CA configurations with n46E

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 1-2 Draft CR R4-2111842 Add UE coex for n96

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 1-3 Draft CR R4-2113434 Clarify fallback group

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

### 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** |
| XXX | Company A |
| Company B |
|  |
| YYY | Company A |
| Company B |
|  |

## 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 #1** | *Tentative agreements:*  *Candidate options:*  *Recommendations for 2nd round:* |

### 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.*

|  |  |
| --- | --- |
| **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”* |

## Discussion on 2nd round (if applicable)

# Topic #2: Other UE RF maintenance

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

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2112727**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112727.zip) | ZTE Corporation | Draft CR: Draft CR to TS 38.101-1 on corrections to symbols and abbreviations (Rel-16)  Some symbols in clause 3.2 and abbreviations in clause 3.3 are inaccurate and should be corrected.  (1) To correct symbols in clause 3.2.  (2) To correct abbreviations in clause 3.3.  The symbols and abbreviations will be inaccurate. |
| [**R4-2113403**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113403.zip) | Huawei, HiSilicon | Discussion on type 2 UE requirements  Observation 1: At least 25dB power imbalance should be considered for type 2 UE Rx requirements considering the network deployment.  Proposal 1: To specify 30 dB power imbalance for type 2 UE Rx requirements.  Proposal 2: To place two DL carriers as close as possible.  Proposal 3: To specify the power imbalance requirements for Type 2 UE as below. |
| [**R4-2113413**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113413.zip) | Huawei, HiSilicon | Draft CR: CR for 38.101-3 to specify type 2 UE requirements(Rel-16)  Based on the approved WF R4-2107784, RAN4 need to specify requirements to ensure performance with larger received PSD differences (more than 6 dB for Type 1) between inter-band with shared DL spectrum cell groups.  1. To specify power imbalance requriements for type 2 UE of inter-band EN-DC with overlapping DL bands.  2. To correct note 11 and note 13 in table 5.5B.4.1-1 in Rel-17 due to the disalignment between Rel-16 and Rel-17.  There is no power imbalance requriements for type 2 UE of inter-band EN-DC with overlapping DL bands. |

## Open issues summary

Collect company views on the following two sub-topics.

### Sub-topic 2-1 Draft CR R4-2112727 Correction to symbols and abbreviations

* Proposals
  + Are the corrections proposed in R4-2112727 needed and acceptable?
* Recommended WF
  + TBA

### Sub-topic 2-2 Type 2 UE requirements

* Proposals
  + “Another carrier” is 30 dB higher than wanted carrier, same channel bandwidth between the two carriers
  + Space the two carriers together as closely as possible
  + 14 dB refsens relaxation for wanted carrier
* Recommended WF
  + TBA

## Companies views’ collection for 1st round

### Open issues

Sub topic 2-1 Draft CR R4-2112727 Correction to symbols and abbreviations

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

Sub topic 2-2 Type 2 UE requirements

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX |  |

### 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** |
| [**R4-2112727**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112727.zip)  Draft CR to TS 38.101-1 on corrections to symbols and abbreviations (Rel-16) | Company A |
| Company B |
|  |
| [**R4-2113413**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113413.zip)  Draft CR: CR for 38.101-3 to specify type 2 UE requirements(Rel-16) | Company A |
| Company B |
|  |

## 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#1** | *Tentative agreements:*  *Candidate options:*  *Recommendations for 2nd round:* |

### 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”* |

## 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”.*

# Recommendations for Tdocs

## 1st round

**New tdocs**

|  |  |  |
| --- | --- | --- |
| **Title** | **Source** | **Comments** |
| WF on … | YYY |  |
| LS on … | ZZZ | To: RAN\_X; Cc: RAN\_Y |
|  |  |  |

**Existing tdocs**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-210xxxx | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| [**R4-2111839**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2111839.zip) | Delete CA configurations with n46E | Charter Communications, Inc |  |  |
| [**R4-2111840**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2111840.zip) | Delete CA configurations with n46E | Charter Communications, Inc |  |  |
| [**R4-2111841**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2111841.zip) | Add n96 to Table 6.5.3.2-1 | Charter Communications, Inc |  |  |
| [**R4-2111842**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2111842.zip) | Add n96 to Table 6.5.3.2-1 | Charter Communications, Inc |  |  |
| [**R4-2112727**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112727.zip) | Draft CR to TS 38.101-1 on corrections to symbols and abbreviations (Rel-16) | ZTE Corporation |  |  |
| [**R4-2112728**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2112728.zip) | Draft CR to TS 38.101-1 on corrections to symbols and abbreviations (Rel-17) | ZTE Corporation |  |  |
| [**R4-2113403**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113403.zip) | Discussion on type 2 UE requirements | Huawei, HiSilicon |  |  |
| [**R4-2113413**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113413.zip) | DraftCR for 38.101-3 to specify type 2 UE requirements(Rel-16) | Huawei, HiSilicon |  |  |
| [**R4-2113414**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113414.zip) | DraftCR for 38.101-3 to specify type 2 UE requirements(Rel-17) | Huawei, HiSilicon |  |  |
| [**R4-2113434**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113434.zip) | Draft CR for 38.101-1 to clarify fallback group for bandwidth class(Rel-16) | Huawei, HiSilicon |  |  |
| [**R4-2113435**](http://ftp.3gpp.org/TSG_RAN/WG4_Radio/TSGR4_100-e/Docs/R4-2113435.zip) | Draft CR for 38.101-1 to clarify fallback group for bandwidth class(Rel-17) | Huawei, HiSilicon |  |  |

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** |
| R4-210xxxx | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| R4-210xxxx | WF on … | YYY | Agreeable, Revised, Noted |  |
| R4-210xxxx | LS on … | ZZZ | Agreeable, Revised, Noted |  |
|  |  |  |  |  |

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

|  |  |  |
| --- | --- | --- |
| **Company** | **Name** | **Email address** |
|  |  |  |

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)