**3GPP TSG-RAN WG4 Meeting # 104-e R4-2214098**

**Electronic Meeting, 15– 26 August 2022**

**Agenda item:** 10.14.3

**Source:** Moderator (CATT)

**Title:** Email discussion summary for [104-e][120] NR\_LTE\_V2X\_PC5\_combos

**Document for:** Information

# Introduction

In this email discussion summary, some new band combinations for V2X con-current operation in R18 are discussed.

The candidate targets of this email discussion for 1st round and 2nd round:

* 1st round
  + Companies to provide comments on the draft TR skeleton 37.xxx and revised WID for R18 band combinations for V2X con-current operation.
  + Companies to provide comments on open issues involved.
  + Companies to provide comments on draft TPs and CRs involved.
* 2nd round
  + Further check the revised TR skeleton, WID, TPs and CRs if any.
  + Recommend the final status of TR skeleton, revised WID, TPs and CRs.

It is appreciated that the delegates for this topic put their contact information in the table below.

Contact information

|  |  |  |
| --- | --- | --- |
| **Company** | **Name** | **Email address** |
| CATT | Qiuge Guo | guoqiuge@catt.cn |
| Qualcomm | Chan Fernando | mcfernan@qti.qualcomm.com |
|  |  |  |

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)

# Topic #1: Rapporteur input

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2211744 | CATT | Draft TR 37.xxx v0.0.1 TR skeleton for R18 Uu+V2X band combinations |
| R4-2211745 | CATT | Revised WID for Rel-18 band combinations for Uu and V2X concurrent operation  **Update the cover sheet of band combination table and the contents of BCS table** |
| R4-2211746 | CATT | Draft big CR for TS 38.101-1, Introduce new band combinations of V2X con-current operation  [For email approval] |
| R4-2211747 | CATT | Draft big CR for TS 38.101-3, Introduce new band combinations of V2X con-current operation  [For email approval] |

## Open issues summary

*No open issues, and please directly provide your comments on draft TR skeleton and revised WID in section 1.3.1.*

## Companies views’ collection for 1st round

### Open issues

**Issue 1-1-1: Comments on draft TR skeleton (R4-2211744)**

|  |  |
| --- | --- |
| **Company** | **Comments** |
| **Huawei** | **OK with the TR skeleton** |
| **Qualcomm** | **Ok with TR skeleton** |
|  |  |
|  |  |

**Issue 1-1-2: Comments on Revised WID (R4-2211745)**

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| --- | --- |
| **Company** | **Comments** |
| **Huawei** | **OK with the revised WID** |
| **Qualcomm** | **Ok with revised WID** |
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### 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** |
| **Issue 1-1-1 (TR skeleton)** | *Tentative agreements:*   * Approve the TR skeleton in R4-2211744.   *Candidate options: None.*  *Recommendations for 2nd round: No more discussion.* |
| **Issue 1-1-2 (revised WID)** | *Tentative agreements:*   * Endorse the Revised WID in R4-2211745.   *Candidate options: None.*  *Recommendations for 2nd round: No more discussion.* |

### 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: V2X\_n3A-n47A and V2X\_n3A\_47A

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2213168 | CATT | Draft CR for TS 38.101-1, Introduce new band combination of V2X\_n3A-n47A |
| R4-2213169 | CATT | Draft CR for TS 38.101-3, Introduce new band combinations of V2X\_n3A\_47A |
| R4-2213170 | CATT | TP on coexistence study of V2X\_n3A-n47A and V2X\_n3A\_47A |

## Open issues summary

### Sub-topic 2-1 Co-existence studies

**Issue 2-1-1: Co-existence studies for V2X\_n3A-n47A and V2X\_n3A\_47A (TP R4-2213170).**

* Proposals
  + Option 1: Apply the co-existence studies of V2X\_3A\_n47A in TR 37.875 to V2X\_n3A-n47A and V2X\_n3A\_47A.
  + Option 2: Other option is not precluded.
* Recommended WF
  + TBA

### Sub-topic 2-2 Draft CRs

**Issue 2-2-1: Whether to endorse the draft CR R4-2213168**

* Proposals
  + Option 1: To be endorsed.
  + Option 2: To be revised based on 1st round discussion.
* Recommended WF
  + TBA

**Issue 2-2-2: Whether to endorse the draft CR R4-2213169**

* Proposals
  + Option 1: To be endorsed.
  + Option 2: To be revised based on 1st round discussion.
* Recommended WF
  + TBA

## Companies views’ collection for 1st round

### Open issues

**Issue 2-1-1: Co-existence studies for V2X\_n3A-n47A and V2X\_n3A\_47A (TP R4-2213170).**

|  |  |
| --- | --- |
| **Company** | **Comments** |
| **Huawei** | **It can be clarified that there is no delta Tib and Rib.** |
| **Qualcomm** | **Could you please clarify how the frequency ranges for the satellite bands in table 6.2.1.3-3 were selected** |
| **CATT** | **Thanks Huawei for the clarification. The corresponding clause is empty, and if you want to remove it, we are also fine.**  **To Qualcomm, thanks for the question. The table is referred to R17 study in TR 37.875 which referred to LTE. For your question, we need to check the background in LTE. Since I am also not sure the history of this feature in LTE, we may need some time to check whether there are some considerations on this band selection or there are actually some bands missing in the NR spec.** |
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**Issue 2-2-1: Whether to endorse the draft CR R4-2213168**

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| **Company** | **Comments** |
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**Issue 2-2-2: Whether to endorse the draft CR R4-2213169**

|  |  |
| --- | --- |
| **Company** | **Comments** |
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### 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** |
| R4-2213168 (CATT) | Company A |
| Company B |
|  |
| R4-2213169 (CATT) | Company A |
| Company B |
|  |
| R4-2213170 (CATT) |  |
|  |
|  |

## 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** |
| **Issue 2-1-1**  **Issue 2-2-1**  **Issue 2-2-2** | *Tentative agreements:*  *Candidate options:*  Check the GNSS bands in table 6.2.1.3-3 in R4-2213170.  *Recommendations for 2nd round: Check how the GNSS bands in table 6.2.1.3-3 are selected.* |

### 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**

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

**Existing tdocs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Tdoc number** | **Revised to** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-22xxxxx |  | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| R4-2211744 |  | Draft TR 37.xxx v0.0.1 TR skeleton for R18 Uu+V2X band combinations | CATT | Agreeable |  |
| R4-2211745 |  | Revised WID for Rel-18 band combinations for Uu and V2X concurrent operation | CATT | Agreeable |  |
| R4-2213168 |  | Draft CR for TS 38.101-1, Introduce new band combination of V2X\_n3A-n47A | CATT | Return to |  |
| R4-2213169 |  | Draft CR for TS 38.101-3, Introduce new band combinations of V2X\_n3A\_47A | CATT | Return to |  |
| R4-2213170 |  | TP on coexistence study of V2X\_n3A-n47A and V2X\_n3A\_47A | CATT | Return to |  |

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** | **Revised to** | **Title** | **Source** | **Recommendation** | **Comments** |
| R4-22xxxxx |  | CR on … | XXX | Agreeable, Revised, Merged, Postponed, Not Pursued |  |
| R4-22xxxxx |  | WF on … | YYY | Agreeable, Revised, Noted |  |
| R4-22xxxxx |  | 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