**3GPP TSG-RAN WG4 Meeting # 98-e R4-21xxxxx**

**Electronic Meeting, Jan. 25 - Feb. 5, 2021**

**Agenda item:** 9.23

**Source:** Moderator (CATT)

**Title:** Email discussion summary for [[98e][122] NR\_LTE\_V2X\_PC5\_combos](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_98_e/Inbox/Drafts/%5B98e%5D%5B122%5D%20NR_LTE_V2X_PC5_combos)

**Document for:** Information

# Introduction

This email discussion summary will discuss the specific request of band combination and associated CRs.

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

* 1st round
  + Companies to provide comments on TPs and CRs involved.
  + Assign the corresponding WF after the 1st round discussion if needed.
* 2nd round
  + FFS

# Topic #1: General issues of con-current operation

## Companies’ contributions summary

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| **T-doc number** | **Company** | **Proposals / Observations** |
| [R4-2100412](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100412.zip) | CATT | TP on V2X\_n41A-n47A coexistence study |
| [R4-2100413](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100413.zip) | CATT | CR for TS 38.101-1, Introduce new band combination of V2X\_n41A-n47A |
| [R4-2100414](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100414.zip) | CATT | CR for TS 38.101-3, Introduce new band combination of V2X\_41A-n47A and V2X\_n41A-47A |
| [R4-2100502](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100502.zip) | CATT | TR 37.875 on band combinations for con-current operation of NR/LTE Uu bands/band combinations and one NR/LTE V2X PC5 band |
| [R4-2101290](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2101290.zip) | CATT | Revised WID for V2X band combination |
| [R4-2100617](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100617.zip) | Qualcomm Incorporated | Revision of inter-band V2X con-currency table for V2X\_n39A-n47A and V2X\_n40A-n47A |
| [R4-2100618](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100618.zip) | Qualcomm Incorporated | Revision of inter-band V2X con-currency table for V2X\_39\_n47 and V2X\_40\_n47 |

## Open issues summary

Based on above contributions, the correction on spurious emission protected band for UE co-existence, i.e. [R4-2100617](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100617.zip) and [[R4-2100618](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100617.zip),](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100617.zip) will be treated as a sub-topic. Other CRs and TP regarding newly added band combination will be directly treated in sub-cluase 1.3.2.

### Sub-topic 1-1: spurious emission protected band for UE co-existence

**Issue 1-1-1: spurious emission protected band for UE co-existence**

* Proposals
  + Option 1: Remove band n47 in protected band list for V2X\_n39-n47, V2X\_n40-n47, V2X\_39-n47, V2X\_40-n47 as proposed in CR R4-2100617 and CR R4-2100617.
  + Option 2: Keep the protected band list as it is.
* Recommended WF
  + Need more discussion.

## Companies views’ collection for 1st round

### Open issues

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| **Company** | **Comments** |
| **CATT** | **Issue 1-1-1: spurious emission protected band for UE co-existence**  **Support option 1.** |
| **Qualcomm** | **Issue 1-1-1: Option1. N47 has to be removed from the protected band list as it is a TDD band and the DL and UL frequencies are the same.** |
| **LGE** | **Yes, in previous RAN4 meeting, we removed n47 in the protect band list for n47 V2X operation and V2X\_n71A-n47A UE in TS38.101-1** |
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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.*

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| **CR/TP number** | **Comments collection** |
| [R4-2100412](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100412.zip)  (TP on V2X\_n41A-n47A coexistence study) | **LGE: based on the above comment, TP can updated.** |
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| [R4-2100413](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100413.zip)  (CR for TS 38.101-1, Introduce new band combination of V2X\_n41A-n47A) | **Qualcomm: Table 7.3E.3-3 – the NRB values used for Uu n39,n40 and n41 should be full RB values on 52, 24 and 11 for SCS=15kHz, 30 kHz and 60kHz respectively** |
| **LGE: agree with QC.** |
|  |
| [R4-2100414](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100414.zip)  (CR for TS 38.101-3, Introduce new band combination of V2X\_41A-n47A and V2X\_n41A-47A) | **Qualcomm: Table 7.3E.2.3-3 – the NRB values used for Uu 20, n39, 30 ,n40, 40, n41 and n71 should be full RB values on 52, 24 and 11 for SCS=15kHz, 30 kHz and 60kHz respectively** |
| **LGE: agree with QC.** |
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| [R4-2100502](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100502.zip)  (TR 37.875 on band combinations for con-current operation of NR/LTE Uu bands/band combinations and one NR/LTE V2X PC5 band) |  |
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| [R4-2101290](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2101290.zip) (Revised WID for V2X band combination) |  |
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| [R4-2100617](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100617.zip)  (Revision of inter-band V2X con-currency table for V2X\_n39A-n47A and V2X\_n40A-n47A) | CATT: Support this CR. |
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| [R4-2100618](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_98_e/Docs/R4-2100618.zip)  (Revision of inter-band V2X con-currency table for V2X\_39\_n47 and V2X\_40\_n47) | CATT: Support this CR. |
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## 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.*

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|  | **Status summary** |
| **Sub-topic#1** | *Tentative agreements:*  *Candidate options:*  *Recommendations for 2nd round:* |
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*Recommendations on WF/LS assignment*

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|  | **WF/LS t-doc Title** | **Assigned Company,**  **WF or LS lead** |
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### CRs/TPs

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

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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”* |
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## Discussion on 2nd round (if applicable)

## Companies views’ collection for 2st round

### Open issues

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| **Company** | **Comments** |
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### CRs/TPs comments collection

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| **CR/TP number** | **Comments collection** |
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## 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*

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| **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”* |
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