**3GPP TSG-RAN WG4 Meeting # 102-e draft R4-2206423**

**Electronic Meeting, 21 February – 03 March 2022**

**Agenda item:** 12.8

**Source:** Moderator (Huawei)

**Title:** Email discussion summary for [102-e][123] LTE\_Upper\_700MHz

**Document for:** Information

# Introduction

This summary covers agenda items 8.8 for the LTE\_upper\_700MHz\_A work item. The following topics were identified:

1. General aspects
2. Set of final CRs

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

* 1st round:
	+ Fix CR cover page issues.
	+ Collect technical comments (if any) on the set of final CRs.
* 2nd round: conclude on the remaining 3 CR revisions.

# Topic #1: General

The only contribution is the updated TR. Companies are invited to double-check on the implemention of th TPs from the previous RAN4#101bis-e meeting.

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2204346 | Puloli | TR 36.779 Update (v0.1.0)Moderator: updated version of the TR 36.779 v0.1.0, implementing TPs from RAN4#101bis-e. Available online: <https://ftp.3gpp.org//Specs/archive/36_series/36.779/36779-010.zip> |

## Open issues summary

### CRs/TPs comments collection

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2204346 | Baicells: Approve the TR. |
|  |
|  |

## Summary for 1st round

### CRs/TPs

The updated version of the TR 36.779 v0.1.0, implementing TPs from RAN4#101bis-e is agreeable. Updated TR available already online: <https://ftp.3gpp.org//Specs/archive/36_series/36.779/36779-010.zip>

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| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation**  |
| R4-2204346 | Agreeable |

# Topic #2: CRs

This topic covers the final set of CRs to coere and test specifications for band 103. Companies to double check for CRs implementation.

Number of minor CR cover page issues were identified by the Moderator.

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2204460  | Puloli | Introduction of upper 700MHz A block into TS 36.101 |
| R4-2204487 | Puloli | Introduction of upper 700MHz A block into TS 38.101 |
| R4-2204352 | Baicells | CR to TS36.104 on introduction of upper 700MHz A block |
| R4-2204353 | Baicells | CR to TS37.104 on introduction of upper 700MHz A block |
| R4-2204354 | Baicells | CR to TS37.105 on introduction of upper 700MHz A block |
| R4-2204355 | Baicells | CR to TS38.104 on introduction of upper 700MHz A block |
| R4-2205989 | Huawei, HiSilicon | CR to TS 37.145-1: implementation of LTE\_upper\_700MHz\_A band 103 |
| R4-2205990 | Huawei, HiSilicon | CR to TS 37.145-1: implementation of LTE\_upper\_700MHz\_A band 103 |
| R4-2205991 | Huawei, HiSilicon | CR to TS 38.141-1: implementation of LTE\_upper\_700MHz\_A band 103 |
| R4-2205992 | Huawei, HiSilicon | CR to TS 38.141-2: implementation of LTE\_upper\_700MHz\_A band 103 |
| R4-2204356 | Baicells | CR to TS36.141 on introduction of upper 700MHz A block |
| R4-2204357 | Baicells | CR to TS37.141 on introduction of upper 700MHz A block |
| R4-2205993 | Huawei, HiSilicon | CR to TS 36.133: implementation of LTE\_upper\_700MHz\_A band 103 |

## Open issues summary

### CRs/TPs comments collection

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2204460  | Moderator: update the CR cover page to add missing information on the “Other specs affected”, including CR numbers.  |
| Baicells:Comment to cover page: on the coversheet the “Proposed change affects” should be for “ME(mobile equipment)” rather than “Radio Access Network”To Moderator:-          The latest CR template is v12.2 with Rel-19, clarification is needed whether the CR cover page is requested to be updated for all CRs(This comment is applicable for all CRs under this WI).Moderator: by default we all shall use the latest CR template, but if the included information is correct, we may be allowed to stick to v12.1. I am checking with RAN4 secretary.-          And the test specification of UE is not in RAN4 responsibility. Hence the CR# could be not be available for test specifications. Our understanding is that it’s not requested to be updated on CR# of other spec affected at least for this CR.Moderator: agree for this CR (my understanding is that if other spec is marked by “X” as affected, then at least the spec number shall be provided). Related guidance will be provided after the 1st round. |
| Puloli: Agree with Moderator to add missing information on the “Other specs affected”, with the following proposed changes:“Other Core Specs: TS 36.104 CR 4950, TS 36.133 CR 7141, TS 37.104 CR 0956, TS 37.105 CR 0248, TS 38.101-1 CR 1007, TS 38.104 CR 0365Test Specs: TS 36.521-1”Agree with Baicells that the “Proposed change affects” should be for “ME(mobile equipment)” |
| Ericsson: Similar to 4352, a note should be added to the band 103 definition (table 5.5-1) to highlight this NB-IoT standalone band only.Puloli: Note 7 is already added to Table 5.6.1-1 to clarify the band is restricted to NB-IoT operation only. If necessary, however, a similar note can be added to Table 5.5-1 as well. |
| R4-2204487 | Moderator: update the CR cover page to add missing information on the “Other specs affected”, including CR numbers. |
| Baicells: The same comment to R4-2204460. |
| Puloli:Agree with Moderator to add missing information on the “Other specs affected”, with the following proposed changes:“Other Core Specs: TS 36.101 CR 5848, TS 36.104 CR 4950, TS 36.133 CR 7141, TS 37.104 CR 0956, TS 37.105 CR 0248, TS 38.104 CR 0365Test Specs: TS 38.521-1 “Agree with Baicells that the “Proposed change affects” should be for “ME(mobile equipment)” |
| R4-2204352 | Moderator: update the CR cover page to add missing information on CR number of the “Other specs affected”. |
| Baicells: For CR cover page, it’s OK to include CR#, so the field of “Other specs affected (show related CRs)” is changed from “TS36.141” to “TS36.141 CR1352”. |
| R4-2204353 | Moderator: update the CR cover page to add missing information on CR number of the “Other specs affected”. |
| Baicells: For CR cover page, it’s OK to include CR#, so the field of “Other specs affected (show related CRs)” is changed from “TS37.141” to “TS37.141 CR0998”. |
| R4-2204354 | Moderator: update the CR cover page to add missing information on CR number of the “Other specs affected”.  |
| Baicells: For CR cover page, it’s OK to include CR#, so the field of “Other specs affected (show related CRs)” is changed from “TS37.145-1/2” to “TS37.145-1 CR0280; TS37.145-2 CR0322”. |
| R4-2204355 | Moderator: update the CR cover page to add missing information on CR number of the “Other specs affected”. |
| Baicells: For CR cover page, it’s OK to include CR#, so the field of “Other specs affected (show related CRs)” is changed from “TS38.141-1/2” to “TS38.141-1 CR0262; TS38.141-2 CR0384”. |
| R4-2205989 | Moderator: to clarify that this is a formal CR, not a draft CR as the cover sheet mentions in the Abstract. Update the CR cover page to add missing information on CR number of the “Other specs affected”.Nokia: CR not consistent with CR to 37.105Huawei: @Nokia: please elaborate the comment above on the observed inconsistency. |
| Puloli: Should the entry of “WA E-UTRA Band 103” be rename as “E-UTRA Band 103” in Table 6.6.6.5.2.6-1? |
| Baicells:For CR cover page, the WI\_code on coverpage may be better to be LTE\_upper\_700MHz\_A- Perf. In addition, we would like to clarify the interpretation on affected other core specification. Our understanding is that only core spec CR will have impact on corresponding testing spec but not vice versa. Hence for CR to conformance testing spec we haven’t listed the core spec and parallel test spec in cover page.Moderator (Huawei): based on the explanation, probably this is ok (or a matter of preference).For the changes in CR: No need to update several requirements since NB-IoT operations are not supported by AAS BS and not covered by this specification as below:- Note in last column to Table 6.6.6.5.2.5-1 for band 103 should be removed.- Table 6.6.6.5.2.5-4 is not applicable for band 103.- Table 7.5.5.4.1-1/2/3 is not applicable for band 103.Huawei: Agree with the comments to table 6.6.6.5.2.5-1: note is not needed as AAS BS will not operate in band 103. Agree with comment to Table 6.6.6.5.2.5-4 - AAS BS will not operate in band 103.Agree with comment to Tables 7.5.5.4.1-1/2/3 – only co-location blocking requires updates.  |
| R4-2205990 | Moderator: to clarify that this is a formal CR, not a draft CR as the cover sheet mentions in the Abstract. Update the CR cover page to add missing information on CR number of the “Other specs affected”.Nokia: CR not consistent with CR to 37.105Huawei: @Nokia: please elaborate the comment above on the observed inconsistency. |
| Baicells:For CR cover page (same as the comment to5989), the WI\_code on coverpage may be better to be LTE\_upper\_700MHz\_A- Perf. In addition, we would like to clarify the interpretation on affected other core specification. Our understanding is that only core spec CR will have impact on corresponding testing spec but not vice versa. Hence for CR to conformance testing spec we haven’t listed the core spec and parallel test spec in cover page.For the changes in CR: No need to update several requirements since NB-IoT operations are not supported by AAS BS and not covered by this specification as below:- Table 6.7.6.4.5.1.1-1: note in last column is not needed for band 103- Table 6.7.6.4.5.1.1-3: requirement in this table is not applicable for band 103 Huawei: Agree with the commentsTo Moderator:The CR title in report and t-doc list should be corrected to TS37.145-2 rather than TS37.145-1. |
| R4-2205991 | Moderator: to clarify that this is a formal CR, not a draft CR as the cover sheet mentions in the Abstract. Update the CR cover page to add missing information on CR number of the “Other specs affected”. |
| Baicells: comment to CR cover page: the same comment as to 5989/5990 |
| R4-2205992 | Moderator: to clarify that this is a formal CR, not a draft CR as the cover sheet mentions in the Abstract. Update the CR cover page to add missing information on CR number of the “Other specs affected”. |
| Baicells: comment to CR cover page: the same comment as to 5989/5990 |
| R4-2204356 | Moderator: update the CR cover page to add missing information on the “Other specs affected”, including CR numbers.  |
| Baicells: comment to CR cover page: the same comment as to 5989/5990 |
| R4-2204357 | Moderator: update the CR cover page to add missing information on the “Other specs affected”, including CR numbers.  |
| Baicells: comment to CR cover page: the same comment as to 5989/5990 |
| R4-2205993 | Moderator: to clarify that this is a formal CR, not a draft CR as the cover sheet mentions in the Abstract. Update the CR cover page to add missing information on the “Other specs affected”, including CR numbers.  |
| Baicells: For cover page, the WI\_code on cover page may be better to be  LTE\_upper\_700MHz\_A-Core. As commented by Moderator, for the field of “Other specs affected”, TS 36.521-3 should be added in the row of “Test specifications”. CR number is not needed in this case. |

## Summary for 1st round

### CRs/TPs

All the CRs are revised. Some require only CR cover page correction. For detailed guidance, refer to section 3.1.

## Discussion on 2nd round

### CRs/TPs comments collection

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| --- | --- |
| **CR/TP number** | **Comments collection** |
| R4-2206490(Revision of R4-2204460) |  |
| R4-2206496 (Revision of R4-2205989) |  |
| R4-2206497 (Revision of R4-2205990) | Nokia: in CR to 37.145-2, the following is proposed but there is no support (protection only) of Band 103 in this specification?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| E-UTRA Band 103 | 757 –      758 MHz | -40.4 dBm | 1 MHz | This requirement does not apply to BS operating in band 103. |
| 787 –      788 MHz | -37.4 dBm | 1 MHz | This requirement does not apply to BS operating in band 103, since it is already covered by the requirement in clause 6.7.6.3.5.3. |

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| --- | --- | --- | --- | --- |
| 103 | 763 - 775 MHz | -37 dBm | 6.25 kHz |  |
| 103 | 793 - 805 MHz | -37 dBm | 6.25 kHz |  |

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| Baicells: upload the draft CRs related to 37.145-1 and -2 with track changes to easy track of the comments.[draft R4-2206496\_Baicells.docx](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_102-e/Inbox/Drafts/%5B102-e%5D%5B123%5D%20LTE_Upper_700MHz/Round%202/draft%20R4-2206496_Baicells.docx)[draft R4-2206497\_Baicells.docx](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_102-e/Inbox/Drafts/%5B102-e%5D%5B123%5D%20LTE_Upper_700MHz/Round%202/draft%20R4-2206497_Baicells.docx) |
| Moderator: Nokia concerns were addressed by Baicells revision. |

# Recommendations for Tdocs

## 1st round

**New tdocs**

**Existing tdocs**

The following guidance is proposed depending on the required corrections:

1. CRs with technical comments received during the 1st round, we follow the regular way, i.e. revisions to be discussed during the second round.

1. CRs with CR cover page issues only, the following is proposed to reduce the workload during the 2nd round:

* Revise CR (please remember to indicate the revision field “rev” by 1),
* Proponents to correct the CR cover page, as per comments received during the first round,
* Other specs affected: for completeness and easier spec updates tracking in future, it is suggested by the Moderator to capture related CR numbers irrespective of core, or test specification.
* Formal revised CR to be uploaded to the Inbox WITHOUT further discussion during the 2nd round.

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| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation**  | **Comments** |
| R4-2204346 | TR 36.779 Update (v0.1.0) | Puloli | Agreeable |  |
| R4-2204460 | Introduction of upper 700MHz A block into TS 36.101 | Puloli | Revised | Technical comments, CR cover corrections |
| R4-2204487 | Introduction of upper 700MHz A block into TS 38.101 | Puloli | Revised | CR cover corrections only |
| R4-2204352 | CR to TS36.104 on introduction of upper 700MHz A block | Baicells | Revised | CR cover corrections only |
| R4-2204353 | CR to TS37.104 on introduction of upper 700MHz A block | Baicells | Revised | CR cover corrections only |
| R4-2204354 | CR to TS37.105 on introduction of upper 700MHz A block | Baicells | Revised | CR cover corrections only |
| R4-2204355 | CR to TS38.104 on introduction of upper 700MHz A block | Baicells | Revised | CR cover corrections only |
| R4-2205989 | CR to TS 37.145-1: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Revised | Technical comments, CR cover corrections |
| R4-2205990 | CR to TS 37.145-1: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Revised | Technical comments, CR cover corrections |
| R4-2205991 | CR to TS 38.141-1: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Revised | CR cover corrections only |
| R4-2205992 | CR to TS 38.141-2: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Revised | CR cover corrections only |
| R4-2204356 | CR to TS36.141 on introduction of upper 700MHz A block | Baicells | Revised | CR cover corrections only |
| R4-2204357 | CR to TS37.141 on introduction of upper 700MHz A block | Baicells | Revised | CR cover corrections only |
| R4-2205993 | CR to TS 36.133: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Revised | CR cover corrections only |

## 2nd round

The remaining CRs were futhere updarted and are considered to be Agreable.

With this, all CRs required by this WI are considered to be Agreeable and the WI may be declared as completed.

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| --- | --- | --- | --- | --- |
| **Tdoc number** | **Title** | **Source** | **Recommendation**  | **Comments** |
| R4-2206490 | Introduction of upper 700MHz A block into TS 36.101 | Puloli | Agreeable |  |
| R4-2206496  | CR to TS 37.145-1: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Agreeable |  |
| R4-2206497  | CR to TS 37.145-2: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Agreeable |  |
| R4-2206491 | Introduction of upper 700MHz A block into TS 38.101 | Puloli | Agreeable |  |
| R4-2206492 | CR to TS36.104 on introduction of upper 700MHz A block | Baicells | Agreeable |  |
| R4-2206493 | CR to TS37.104 on introduction of upper 700MHz A block | Baicells | Agreeable |  |
| R4-2206494 | CR to TS37.105 on introduction of upper 700MHz A block | Baicells | Agreeable |  |
| R4-2206495 | CR to TS38.104 on introduction of upper 700MHz A block | Baicells | Agreeable |  |
| R4-2206498 | CR to TS 38.141-1: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Agreeable |  |
| R4-2206499 | CR to TS 38.141-2: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Agreeable |  |
| R4-2206500 | CR to TS36.141 on introduction of upper 700MHz A block | Baicells | Agreeable |  |
| R4-2206501 | CR to TS37.141 on introduction of upper 700MHz A block | Baicells | Agreeable |  |
| R4-2206502 | CR to TS 36.133: implementation of LTE\_upper\_700MHz\_A band 103 | Huawei, HiSilicon | Agreeable |  |

# Annex

Contact information

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| --- | --- | --- |
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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)