**3GPP TSG-RAN WG4 Meeting # 104-bis-e R4-221xxxx**

**Electronic Meeting, 10 – 19 October 2022**

**Agenda item:** 5.15

**Source:** Man Hung Ng (Nokia)

**Title:** Email discussion summary for [104-bis-e][111] LTE\_NR\_HPUE\_FWVM

**Document for:** Information

# Introduction

Email discussion for contributions submitted under agenda item 5.15 for HPUE fixed-wireless/vehicle-mounted use cases.

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

* 1st round: Discussion and potential approval of TR 37.829 v0.1.0, TP to TR 37.829 to add abbreviations, and UE RF requirements on PC1 MPR with edge region.
* 2nd round: Approval of approval of TR 37.829 v0.1.0, TP to TR 37.829 to add abbreviations, and UE RF requirements on PC1 MPR with edge region.

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

Contact information

|  |  |  |
| --- | --- | --- |
| **Company** | **Name** | **Email address** |
| Skyworks Solutions Inc. | Dominique Brunel | dominique.brunel@skyworksinc.com |
| Meta | Suhwan Lim | suhlim@meta.com |
| Nokia | Petri Vasenkari | petri.j.vasenkari@nokia.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 (WID/TR/CR)

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2215318 | Nokia | Proposal 1: Approve the TR 37.829 v0.1.0  Observation 1: |
| R4-2215319 | Nokia | Proposal 1: Approve the TP to TR 37.829 to add abbreviations  Observation 1: |

## Open issues summary

### Sub-topic 1-1

**Issue 1-1: TR 37.829 v0.1.0**

* Proposals (Moderator note: TR number is t-doc title is not correct, but the TR number in the t-doc content is correct, so should be alright to approve t-doc without changing the t-doc title if the t-doc content is agreeable.)
  + Option 1: Approve the TR 37.829 v0.1.0.
  + Option 2: Revise the skeleton TR 37.829 v0.1.0.
* Recommended WF
  + TBA

### Sub-topic 1-2

**Issue 1-2: TP to TR 37.829 to add abbreviations**

* Proposals (Moderator note: TR number is t-doc title is not correct, but the TR number in the t-doc content is correct, so should be alright to approve t-doc without changing the t-doc title if the t-doc content is agreeable.)
  + Option 1: Approve the TP.
  + Option 2: Revise the TP.
  + Option 3: Postpone the TP.
* Recommended WF
  + TBA

## Companies views’ collection for 1st round

### Open issues

Sub topic 1-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| Meta | Fine with option 1 |

Sub topic 1-2

|  |  |
| --- | --- |
| **Company** | **Comments** |
| Meta | Fine with option 1 |

### CRs/TPs comments collection

## 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: UE RF requirements

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2216044 | Nokia, Nokia Shanghai Bell | Proposal 1: Specify a set of Edge RB allocations to allow higher MPR for RB allocations limited by SEM due to linear spectral regrowth from the windowing effect.  Proposal 2: Make the PC1 MPR of Edge RB allocations depend on the channel bandwidth, with a maximum MPR of 8.5 dB.  Proposal 3: Define the set of Edge RB allocations in a way that depends of the channel bandwidth.  Observation 1: |

## Open issues summary

### Sub-topic 2-1

**Issue 2-1: Proposal 1**

* Proposals
  + Option 1: Approve proposal 1.
  + Option 2: Revise proposal 1.
  + Option 3: Postpone proposal 1.
* Recommended WF
  + TBA

### Sub-topic 2-2

**Issue 2-2: Proposal 2**

* Proposals
  + Option 1: Approve proposal 2.
  + Option 2: Revise proposal 2.
  + Option 3: Postpone proposal 2.
* Recommended WF
  + TBA

### Sub-topic 2-3

**Issue 2-3: Proposal 3**

* Proposals
  + Option 1: Approve proposal 3.
  + Option 2: Revise proposal 3.
  + Option 3: Postpone proposal 3.
* Recommended WF
  + TBA

## Companies views’ collection for 1st round

### Open issues

Sub topic 2-1

|  |  |
| --- | --- |
| **Company** | **Comments** |
| Skyworks | Agree option 1: edge allocation MPR is needed |
| Meta | Support option 1 |
| Nokia | Option 1 |

Sub topic 2-2

|  |  |
| --- | --- |
| **Company** | **Comments** |
| Skyworks | Agree proposal 2 with max MPR of 8.5dB (consistent with PC1.5+2dB) for cBW dependency, may be there should be only <50MHz (most FDD) and >50MHz (a few TDD) but this was not adopted for other power classes although the behavior should be the same. |
| Meta | RAN4 need more input to define the detail MPR requirements for edge RB allocation. |
| Nokia | We can agree to wait more MPR data but are not sure if it will happen as there has not been so many companies contributing. |

Sub topic 2-3

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXXSkyworks | Not sure we want to have a too complex way of defining edge allocations (OK in terms of BW rather than LCRB) but again may be only <50MHz vs >50MHz |
| Meta | The principle OK to us to simple way. SKW comment can be applicable to set the MPR format. |
| Nokia | We are open for suggestions and would like to proceed swiftly as this is MPR and affects all bands and this is a change to current spec. Skyworks way could be a solution, but we would like to think about this more and see if more MPR data is available in next meeting. As commented in 2-2 we would like to have CR in next meeting for MPR and n71 and n85 including A-MPR. |

### CRs/TPs comments collection

## 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**

|  |  |  |  |
| --- | --- | --- | --- |
| **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 |  |
| R4-2215318 |  | TR 37.389 v0.1.0 | Nokia |  |  |
| R4-2215319 |  | TP for TR 37.389 to add abbreviations | Nokia |  |  |
| R4-2216044 |  | PC1 MPR with edge region | Nokia, Nokia Shanghai Bell |  |  |

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