**3GPP TSG-RAN WG4 Meeting #97-e R4-200xxxx**

**Electronic Meeting, November 2nd – 13th 2020**

**Agenda item:** 4.9, 7.19.6

**Source:** Moderator (Intel Corporation)

**Title:** Email discussion summary for [97e][314] NR\_Demod\_Maintenance

**Document for:** Information

# Introduction

The scope of this email thread is:

* Rel-15 NR maintenance – UE demodulation and CSI requirements (AI 4.9.1 and 4.9.2)
* Rel-15 NR maintenance – BS demodulation requirements (AI 4.9.3)
* Note: There are no tdocs submitted in this meeting for:
	+ Rel-16 NR maintenance (AI 7.19.6)

Email discussion targets for the 1st round and 2nd round

* 1st round:
	+ Collect comments for NR CRs.
* 2nd round:
	+ Collect comments for revised NR CRs from the 1st round.

# Topic #1: Rel-15 NR maintenance - UE demodulation and CSI requirements

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2014015 | ANRITSU LTD | Rel-15 CR with the following changes for TS 38.101-4:* Update formulae and Table notes to use per-band relaxation factors ∆MBP,n (as demodulation and CSI requirements are specified in Rx Beam peak direction, ∆MBS,n is not relevant).
 |
| R4-2014016 | ANRITSU LTD | Rel-16 Cat A CR of R4-2014015 |
| R4-2015824 | Ericsson | Rel-15 CR with the following changes for TS 38.101-4:* Set the information bit payload in slots where TRS is transmitted as follows:
	+ FDD: 39936bits, according to channel bits of 78624 and MCS19
	+ TDD: 79896bits, according to channel bits of 160272 and MCS19
* Maximum throughput revised accordingly.
 |
| R4-2015825 | Ericsson | Rel-16 Cat A CR of R4-2015824 |
| R4-2016424 | Huawei Technologies Sweden AB | Rel-15 CR with the following changes for TS 38.101-4:* Specified the OCNG pattern to be applied for the “Symbols for all unused REs” in the test parameters
 |
| R4-2016425 | Huawei Technologies Sweden AB | Rel-16 Cat A CR of R4-2016424 |
| R4-2016448 | Qualcomm, Inc. | Rel-15 CR with the following changes for TS 38.101-4:* Clarify that OCNG pattern is not applied to PDSCH DMRS symbols.
 |
| R4-2016449 | Qualcomm, Inc. | Rel-16 Cat A CR of R4-2016448 |
| R4-2014050 | ANRITSU LTD | Rel-15 CR with the following changes for TS 38.101-4:* Corrected Aperiodic Report Slot Offset value: 9 -> 8
 |
| R4-2014051 | ANRITSU LTD | Rel-16 Cat A CR of R4-2014050 |
| R4-2014052 | ANRITSU LTD | Rel-15 CR with the following changes for TS 38.101-4:* Corrected Aperiodic Report Slot Offset values for Test 1 and Test 2: Test 1: 7 -> 6, Test 2: 9 -> 8
 |
| R4-2014053 | ANRITSU LTD | Rel-16 Cat A CR of R4-2014052 |

## Open issues summary

N/A

## Companies views’ collection for 1st round

### Open issues

N/A

### CRs comments collection

|  |  |
| --- | --- |
| **CR number** | **Comments collection** |
| R4-2014015 |  |
|  |
|  |
| R4-2015824 |  |
|  |
|  |
| R4-2016424 |  |
|  |
|  |
| R4-2016448 |  |
|  |
|  |
| R4-2014050 |  |
|  |
|  |
| R4-2014052 |  |
|  |
|  |

## Summary for 1st round

### Open issues

|  |
| --- |
| **Status summary**  |
|  |

### CRs

|  |  |
| --- | --- |
| **CR number** | **CRs/TPs Status update recommendation**  |
|  |  |
|  |  |
|  |  |
|  |  |

## Discussion on 2nd round (if applicable)

## Summary on 2nd round (if applicable)

|  |  |
| --- | --- |
| **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”* |

# Topic #2: Rel-15 NR maintenance - BS demodulation requirements

## Companies’ contributions summary

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| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| R4-2014494 | Nokia, Nokia Shanghai Bell | Rel-15 CR with the following changes for TS 38.141-2:* Added note in PUSCH minimum perfromance requirement OTA test setup, following the text agreed in TR 37.941 (section 15.3) on HARQ feedback, to allow HARQ feedback on an error-free feedback link in OTA testing.Note adapted from TS 38.141-1.
 |
| R4-2014509 | Nokia, Nokia Shanghai Bell | Rel-16 Cat A CR of R4-2014494 |
| R4-2015843 | Ericsson | Rel-15 CR with the following changes for TS 38.104:* Adding MCS12 requirements for 2-O PUSCH performance
* Adding 30% throughput requirements for 2-O PUSCH performance
* Adding corresponding FRC tables for 2-O PUSCH performance
* Adjust table format
 |
| R4-2015844 | Ericsson | Rel-15 CR with the following changes for TS 38.141-2:* Adding applicability rule for 30% throughput requirement
* Adding MCS12 requirements for 2-O PUSCH performance
* Adding 30% throughput requirements for 2-O PUSCH performance
* Adding corresponding FRC tables for 2-O PUSCH performance
* Adjust table format
 |

## Open issues summary

N/A

## Companies views’ collection for 1st round

### Open issues

N/A

### CRs comments collection

|  |  |
| --- | --- |
| **CR number** | **Comments collection** |
| R4-2014494 |  |
|  |
|  |
| R4-2015843 | China Telecom: For PUSCH FR2 2T2R with MCS 12, we raised this issue in the last year, and the agreement at RAN4 #92bis is copied as below (captured in ad-hoc minutes in R4-1912722):The PUSCH FR2 2T2R with MCS 12 requirements are applicable from Rel-16.But we are fully ok to re-open this issue to see if the proposal from E/// can be agreeable. |
|  |
|  |
| R4-2015844 | China Telecom: Same comment as to the 38.104 CR. |
|  |
|  |

## Summary for 1st round

### Open issues

N/A

### CRs

|  |  |
| --- | --- |
| **CR number** | **CRs/TPs Status update recommendation**  |
|  |  |
|  |  |

## Discussion on 2nd round (if applicable)

## Summary on 2nd round (if applicable)

|  |  |
| --- | --- |
| **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”* |