**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

|  |  |  |
| --- | --- | --- |
| **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”* |