**3GPP TSG-RAN WG4 Meeting #112 *R4-2413423***

**Maastricht, Netherlands, 19th – 23rd August, 2024**

**Agenda item:** 5.27.4

**Source:** Moderator (Samsung)

**Title:** Topic summary for [112][323] NR\_MIMO\_evo\_DL\_UL\_demod

**Document for:** Information

# Introduction

This topic summary covers the contributions submitted under the following AI for demodulation performance requirements of Rel-18 NR MIMO evolution for downlink and uplink:

5.27.3 Demodulation performance requirements [NR\_MIMO\_evo\_DL\_UL-Perf]

5.27.3.1 UE demodulation performance and CSI requirements [NR\_MIMO\_evo\_DL\_UL-Perf]

5.27.3.2 BS demodulation performance requirements [NR\_MIMO\_evo\_DL\_UL-Perf]

RAN4#108bis ~ RAN4#111 meetings are the formal working duration for this topic. RAN4#112 meeting is the maintenance phase of this topic. Since no open issues are left, there are no discussion documents in this meeting but several CRs are submitted. An email thread will be created to collect comments on these CRs during the meeting.

# Topic #1: UE demodulation and CSI

## Companies’ contributions summary

### Discussion papers and simulation results

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| None |

### CRs

|  |  |  |  |
| --- | --- | --- | --- |
| **T-doc number** | **Company** | **Title / Proposals** | **Moderator’s comment** |
| [R4-2411388.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2411388.zip) | Apple | CR for Applicability of requirements for MIMO Evo1. Add TDD test cases for eDMRS applicability
 | Merge to R4-2412875 |
| [R4-2411666.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2411666.zip) | Nokia | CR for 38.101-4 on PMI req for typeII-CJT-r18 for FR1 FDD1. Remove [] of typeII CJT
 | Merge to R4-2412876 |
| [R4-2412771.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412771.zip) | Huawei, HiSilicon | CR on PMI reporting requirements of typeII-doppler-r18 for FR11. Remove [] of typeII-doppler-r18
 | Merge to R4-2412876 |
| [R4-2412875.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412875.zip) | Samsung | CR on applicability rules and demodulation requirements for Rel-18 MIMO1. Add TDD test cases for eDMRS applicability
2. Add case number of eDMRS for mandatory features
3. Remove [] of eDMRS demodulation requirements
 | Revise to co-sign Apple |
| [R4-2412876.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412876.zip) | Samsung | CR on applicability rules and CSI reporting requirements for Rel-18 MIMO1. Correct applicability rules of Rel-18 Enhanced Type II Codebooks
2. Correct the measurement channels of typeII-doppler-r18
3. Remove [] of Rel-18 MIMO PMI reporting requirements
 | Revise to co-sign Nokia and Huawei, HiSilicon |

## Open issues summary

No discussion papers were submitted, therefore, the discussion can go directly for the CR.

# Topic #2: BS demodulation

## Companies’ contributions summary

### Discussion papers and simulation results

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| None |

### CRs

|  |  |  |  |
| --- | --- | --- | --- |
| **T-doc number** | **Company** | **Title / Proposals** | **Moderator’s comment** |
| [R4-2412312.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412312.zip) | Ericsson | CR for 38.141-1 on manufactory declaration, applicability rule and test torlerance for PUSCH with enhanced DM-RS 1. Change index number in manufactory declaration table.
2. Change queted manufactory index in applicability rule.
3. Adding test torlerance.
 |  |
| [R4-2412313.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412313.zip) | Ericsson | CR for 38.141-2 adding demodulation requirements for PUSCH with enhanced DM-RS1. Adding demodulation requirements.
2. Update the section index in test torlerance table.
 |  |

## Open issues summary

No discussion papers were submitted, therefore, the discussion can go directly for the CR.

# Topic #3: Suggested status for Tdocs

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Suggested status** | **Comments** |
| [R4-2411388.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2411388.zip) | Merged  | Merge to R4-2412875 |
| [R4-2411666.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2411666.zip) | Merged | Merge to R4-2412876 |
| [R4-2412771.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412771.zip) | Merged | Merge to R4-2412876 |
| [R4-2412875.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412875.zip) | Revised | Revise to co-sign Apple |
| [R4-2412876.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412876.zip) | Revised | Revise to co-sign Nokia and Huawei, HiSilicon |
| [R4-2412312.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412312.zip) | Agreed? |  |
| [R4-2412313.zip](https://www.3gpp.org/ftp/tsg_ran/WG4_Radio/TSGR4_112/Docs/R4-2412313.zip) | Agreed? |  |