**3GPP TSG-RAN WG1 Meeting #114 R1-23xxxxx**

**Toulouse, France, 21-25 August, 2023**

**Agenda Item: 9.17**

**Source: Moderator (Huawei)**

**Title: Summary of email discussion [Post114-38.212-NR\_demod\_enh3-Perf]**

**Document for: Discussion and Decision**

# Introduction

This document summarizes the discussions on the 38.212 draft CR on NR demodulation performance evoluation, and aims to stabilize the 38.212 draft CR.

[Post114-38.212-NR\_demod\_enh3-Perf] Email discussion on Rel-18 draft CRs by September 7 – Editors

# First round discussions

This section summarize the first round email discussions on draft CR v00. Companies are encouraged to provide the first round views by 09/05 (Tuesday), 6:00am UTC, then we can update the draft CR accordingly for the next step discussions.

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| *Company* | *View* |
| **QC** | We think the note should also capture the following agreed in RAN1 114. Note: Root DMRS sequence is $r\left(n\right) $as defined in clause 7.4.1.1.1 of [4, TS 38.211]. The following are assumed for the scheduled PDSCH.* 1. Single TRP based scheme is configured for the PDSCH transmission.
	2. Single codeword is configured for the PDSCH transmission.
	3. CBG based transmission is not configured for the PDSCH transmission.
	4. Rel-15/16/17 DMRS is configured for the PDSCH transmission.

[Chengyan]: Two reasons I didn’t capture it in the current version:1. Per the LS from RAN1 to RAN4, the following question still needs inputs from RAN4. For example, if RAN4 replies that 2 codewords are applied also, then the above note may not be valid again.

Question 2: Whether this new signaling in DCI is supported for one or more DL multi-TRP schemes?Question 3: Whether this new signaling in DCI is supported when the RRC parameter maxNrofCodeWordsScheduledByDCI is configured as 2? Question 4: Whether the new signaling in DCI is supported when the RRC codeBlockGroupTransmission is configured?1. It looks to me that even RAN4 replies No for all the above questions, the note in RAN1 agreement can just be reflected in the RRC parameter, which defines the scenarios that the corresponding RRC parameter can be configured. Then from 38.212 perspective, it can only check whether the RRC parameter is configured or not.
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| **Editor**  | @all After thinking more, I would make some editorial change as below as shown in [draft CR v01](https://www.3gpp.org/ftp/tsg_ran/WG1_RL1/TSGR1_114/Inbox/drafts/9.17%28Other%29/38.212%20draft%20CRs/%5BPost114-38.212-NR_demod_enh3-Perf%5D/R1-23xxxxx%20Introduction%20of%20Rel-18%20NR%20demodulation%20performance%20evolution%20v1.docx), please check and if any further comment, please let me know. In each individual PRB allocated to the UE, all the co-scheduled UE(s), which have the same root DMRS sequence as the UE, are scheduled with the same modulation scheme, except ~~for~~ the cases corresponding to index 0~5 |
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# Second round discussions

TBD