**3GPP TSG RAN WG2 Meeting #131 R2-250xxxx**

Bengaluru, India, Aug 25th – 29th, 2025

Agenda Item: 7.0.1

Source: Xiaomi

Title: Comment for [AT131][022][R18 UE caps] CR (Xiaomi)

Document for: Discussion and Decision

# Introduction

* [AT131][022][R18 UE caps] CR (Xiaomi)

Intended outcome: review and agree by email

Deadline: Thursday

Companies providing input to this email discussion are requested to leave contact information below.

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| **Company** | **Name** | **Email Address** |
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# Comment

Regarding the below rapporteur CR,

[R2-2505308](file:///C:\Users\panidx\OneDrive%20-%20InterDigital%20Communications,%20Inc\Documents\3GPP%20RAN\TSGR2_131\Docs\R2-2505308.zip) Corrections on Rel-18 UE capability descriptions, including [HARQ-ACK MUX on PUSCH] Xiaomi CR Rel-18 38.306 18.6.0 1322 - F NR\_MIMO\_evo\_DL\_UL, NR\_Mob\_enh2, Netw\_Energy\_NR, NR\_XR\_enh, NR\_NTN\_enh, NR\_SL\_enh2, TEI18

Companies are invited to provide comments **if there’s a change that is not agreeable**. Other comments are welcomed.

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| **Capability IE** | **Comment** | **Proposed Change** | **Rapp reply** |
| ***mixCodeBookSpatialAdaptation-r18*** | It is unclear what "the support of multi-panel operation" (proposed to be added) is. | Identify the name of the concerned (combination of) UE capability. (not sure which one it is, sorry) | That is the original wording in RAN1 feature list, where they didn’t put any feature group. I did a quick search, it could be type1 multipanel, but to be safe, I think we just follow RAN1 feature list. |
| ***codebookParametersHARQ-ACK-PUSCH-r18***  ***codebookParametersHARQ-ACK-PUSCH-PerBC-r18*** | "A UE supporting this feature shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*."  It could be misunderstood that "this feature" refers to ***codebookParametersHARQ-ACK-PUSCH-r18*** but actually, it refers to *pucch-DiffResource-PDSCH-r18* | "A UE supporting *pucch-DiffResource-PDSCH-r18* shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*." | Ok with the change. |
| ***codebookParametersHARQ-ACK-PUSCH-r18***  ***codebookParametersHARQ-ACK-PUSCH-PerBC-r18*** | " A UE supporting this feature shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*."  It could be misunderstood that "this feature" refers to ***codebookParametersHARQ-ACK-PUSCH-r18*** but actually, it refers to *diffCB-Size-PDSCH-r18* | " A UE supporting ***codebookParametersHARQ-ACK-PUSCH-r18*** shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*."  Could also make a single sentence "A UE supporting *pucch-DiffResource-PDSCH-*r18 and/or **codebookParametersHARQ*-ACK-PUSCH-r18*** shall also indicate support of one of *multiplexingType1-r18*, *multiplexingType2-r18* and *multiplexingType3-r18*." | Ok with the change. |
| ***pusch-NonCB-SingleDCI-STx2P-SDM-CSI-RS-SRS-r18***  ***pusch-NonCB-SingleDCI-STx2P-SFN-CSI-RS-SRS-r18*** | In one place, " that the UE can process " is added and in another place it is " that UE can process " | Put "the" before "UE" in both places. | Ok with the change. |
| ***CodebookComboParametersCJT-r18*** | " Indicates the UE supports " should be "Indicates that the UE supports" |  | Ok with the change. |
| ***codebookParametersetype2CJT-r18***  ***codebookParametersetype2DopplerCSI-r18***  ***codebookParametersfetype2CJT-r18***  ***tdcp-Report-r18***  ***twoPUSCH-NonCB-Multi-DCI-STx2P-CSI-RS-Resource-r18*** | Why is mandatory requirement of *simultaneousCSI-ReportsAllCC* removed? |  | As discussed in [AT131][006][UE caps] Per band/BC (Samsung), previously ‘in conjunction with’ means per band capability has a dependency with per band capability, while per BC capability has a dependency with per BC capability. This change follows the design of Rel-17 codebook.  If companies have some concerns, we can remove the change for now and update for legacy based on RAN1 reply. |
| ***twoPUSCH-NonCB-Multi-DCI-STx2P-CSI-RS-Resource-r18*** | Why is mandatory requirement of *csi-RS-IM-ReceptionForFeedbackPerBandComb* removed? |  |
| ***codebookParametersetype2CJT-PerBC-r18***  ***codebookParametersetype2DopplerCSI-PerBC-r18***  ***codebookParametersfetype2CJT-PerBC-r18***  ***codebookParametersfetype2DopplerCSI-PerBC-r18***  ***tdcp-ReportPerBC-r18*** | Why is mandatory requirement of *csi-ReportFramework* removed? |  |
| ***pdcch-MonitoringCA-r18*** | "The UE supporting this feature shall also indicate support of *pdcch-Monitoring-r16* for (7,3) or (4,3) span based PDCCH monitoring and *pdcch-MonitoringSpan2-2-r18*." (addition)  Not sure this is entirely correct, mandatory support of pdcch-MonitoringSpan2-2-r18 is only for (2,2) span, but this is not captured. | Sorry, no TP at this stage, this needs some refinement. | The change at least follow RAN1 feature list, if companies have any concern, the discussion can happen in RAN1. Then we update the field description later. But for now, I think we just stick with RAN1 agreement and update it accordingly. |
| ZTE: Issue 1 for the title  Corrections on Rel-18 UE capability descriptions, including [HARQ-ACK MUX on PUSCH] | For the title, maybe we don’t need to add “ including [HARQ-ACK MUX on PUSCH]” | Corrections on Rel-18 UE capability descriptions~~, including [HARQ-ACK MUX on PUSCH]~~ | Since there’s a change for codebookParametersHARQ-ACK-PUSCH-PerBC-r18, then TEI code is needed in the title. |
| ZTE Issue 2: All capabilities in the first change | we may need to wait for RAN1’s feedback on R19 for the same issue, than determine how to update the R18 spec | Remove the first change | Ok, we can wait for RAN1 reply then come back on this issue. |
| ZTE Issue 3: *twoPUSCH-NonCB-Multi-DCI-STx2P-CSI-RS-Resource-r18* | For the capability with Band level granularity but with BC granularity pre-requisite  *RAN2 need to confirm whether the Notes below in 38306 should be applied:*  NOTE 3: Unless otherwise specified, for dependent capabilities with prerequisite capability in a finer granularity,  the UE should indicate support of the prerequisite capability in at least one finer granularity. And the  dependent capability is supported only in the finer granularity where the prerequisite capability is supported.  If applied, we should not delete the per BC level granularity | The modification would depend on companies’ understanding on the NOTE | Ok to postpone this change, considering the question we will ask to RAN1. |
| Lenovo #1: codebookParametersetype2DopplerCSI-r18, codebookParametersetype2DopplerCSI-PerBC-r18 | Field supportedCSI-RS-ReportSetting-r18 does not exist in ASN.1 and should be replaced by SupportedCSI-RS-ReportSetting-r18 | Replace *supportedCSI-RS-ReportSetting-r18* by *SupportedCSI-RS-ReportSetting-r18*. | Ok with the change. |
| Lenovo #2: simulDMRS-PDSCH-r18 (R1 40-4-12) | The description of the condition for the support of simulDMRS-PDSCH-r18 is not aligned with the RAN1 features list.  “A UE supporting this feature shall also indicate support of pdsch-TypeA-DMRS-r18 or pdsch-TypeB-DMRS-r18, and pdsch-ProcessingType2 or pdsch-ProcessingType2-Limited.”  RAN1 features list says “40-4-1/1a, 5-5a/5b”. | Remove “or” from the description of the condition for the support of simulDMRS-PDSCH-r18.  “A UE supporting this feature shall also indicate support of pdsch-TypeA-DMRS-r18, pdsch-TypeB-DMRS-r18, pdsch-ProcessingType2 and pdsch-ProcessingType2-Limited.” | Ok with the change |
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