**3GPP TSG RAN WG1 #110bis Meeting** **R1-22xxxx**

**e-Meeting, October 10th – 19th, 2022**

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| *CR-Form-v12.2* |
| **[DRAFT] CHANGE REQUEST** |
|  |
|  | **38.202** | **CR** |  | **rev** |  | **Current version:** | **17.2.0** |  |
|  |
| *For* [***HELP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:***  | Draft CR on the MBS reception type combinations to TS 38.202 |
|  |  |
| ***Source to WG:*** | Moderator (CMCC), MediaTek, Huawei, HiSilicon, CBN |
| ***Source to TSG:*** | R1 |
|  |  |
| ***Work item code:*** | NR\_MBS-Core |  | ***Date:*** | 2022-10-12 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
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| ***Reason for change:*** | In previous RAN1 meeting, the following agreements were achieved,

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| AgreementFor RRC\_IDLE/INACTIVE UEs, a UE is required to support reception of FDMed MCCH PDSCH and PBCH in PCell.AgreementFor RRC\_IDLE/INACTIVE UEs, a UE is not required to support reception of FDMed MTCH PDSCH and PBCH in PCell.Agreement: For RRC\_CONNECTED UEs, * a UE is not required to support reception of FDMed MCCH/MTCH/multicast PDSCH and SIB PDSCH in Pcell.
* a UE is required to support reception of FDMed MCCH PDSCH and PBCH in Pcell.
* a UE is not required to support reception of FDMed MTCH PDSCH and PBCH in Pcell.
* a UE is not required to support reception of FDMed multicast PDSCH and PBCH in Pcell.

**Agreement**For RRC\_IDLE/INACTIVE UEs, a UE is not required to support reception of FDMed MCCH/MTCH PDSCH and SIB PDSCH in PCell. |

However, it didn’t been capatured in the latest spec. In Table 6.2-2, for RRC\_CONNECTED state and for PCell, the combination of (B and/or (D0 or (m1\*D1+m2\*D2+((m3\*D3+m4\*D4) or m5\*(D5 or D6)) lacks explanation whether UE is required to support FDMed MCCH/MTCH/Multicast and SIB or FDMed MTCH/multicast with PBCH, which is against the agreements above.  |
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| ***Summary of change:*** | Add the folloiwng notes in the table:* Note 13: For a UE supporting MBS multicast or broadcast reception in RRC\_CONNECTED state, it is not required to support reception of FDMed MCCH PDSCH/broadcast MTCH PDSCH/multicast MTCH PDSCH and SIB PDSCH in PCell.
* Note 14: For a UE supporting MBS multicast or broadcast reception in RRC\_CONNECTED state, it is not required to support reception of FDMed broadcast MTCH PDSCH/multicast MTCH PDSCH and PBCH in PCell.
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| ***Consequences if not approved:*** | The misaligned issue between gNB configuration and UE reception capability. |
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| ***Clauses affected:*** | 6.2  |
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|  | **Y** | **N** |  |  |
| ***Other specs*** | **x** |  |  Other core specifications  | TS38.213 (R1-2210208), TS38.214 (R1-2210209) |
| ***affected:*** |  | **x** |  Test specifications |  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications |  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

## 6.2 Downlink

\*\*\* Unchanged text is omitted \*\*\*

Table 6.2-2: Downlink "Reception Type" combinations

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| --- | --- |
| Supported Combinations  | Comment |
| PCell | PSCell | SCell |
| 1. RRC\_IDLE |
| 1.1 All UEs |
| A + (B and/or (C1 or Q) and/or D0) + F0 |  |  | Note 1 |
| 1.2 UEs supporting MBS broadcast reception  |
| A+D5 |  |  |  |
| 2. RRC\_INACTIVE |
| 2.1 All UEs |
| A + (B and/or (C1 or Q) and/or D0) + F0 |  |  | Note 1 |
| 2.2 UEs supporting MBS broadcast reception  |
| A+D5 |  |  |  |
| 3. RRC\_CONNECTED |
| (A + ((C0 + (B and/or (D0 or (m1\*D1+m2\*D2+((m3\*D3+m4\*D4) or m5\*(D5 or D6))))) + E + F0 + n\*F1 + G + H + J0 + J1 + J2 + K + O + L0 + L1 + M + N + P) or D5))  | (A + (D0 or (m1\*D1+m2\*D2)) + E + F0 + n\*F1 + G + H + J0 + J1 + J2 + K + O + N + P)  | m1\*D1 + m2\*D2 + ((m3\*D3+m4\*D4) or m5\*(D5 or D6)) + E + n\*F1 + G + H + J0 + J1 + J2 + K + O + L0 + L1 + M + P | Note 2, Note 3, Note 4, Note 5, Note 6, Note 7, Note 8, Note 9, Note 10, Note 11, Note 12, Note13, Note 14 |
| Note 1: UE is not required to decode more than two PDSCH simultaneously, and decoding prioritization when more than two are received is up to UE implementation.Note 2: For PCell, UE is not required to decode SI-RNTI PDSCH simultaneously with C-RNTI PDSCH, unless in FR1.Note 3: Supported combinations are subject to UE capabilities for dual connectivity, carrier aggregation, receiving of group TPC commands, pre-emption indication and dynamic SFI monitoring.Note 4: The values of m2 ≥ 0 and n≥ 0 in the supported combinations are subject to the UE capability. Note 5: Support of monitoring PDCCH with SL-RNTI, SL-CS-RNTI, SL Semi-Persistent Scheduling V-RNTI are subject to UE capability. Note 6: The values of m1 ≥ 1 in the supported combinations are subject to the UE capability. Note 7: In Active time, a UE is not expected to monitor the DCI format for the PDCCH scrambled by PS-RNTI.Note 8: The PDCCH scrambled by PS-RNTI can only be configured on the PCell and PSCell.Note 9: For a UE supporting MBS multicast reception, the values of 1 ≥ m3 ≥ 0 and m4 ≥ 0 are subject to UE capability and applicable to RRC connected UEs. If m3 = 1, then m1 ≤ 1.Note 10: For a UE supporting MBS multicast or broadcast reception, the UE is not expected to be configured simultaneously with more than one component carrier for multicast or broadcast reception.Note 11: For a UE supporting MBS broadcast reception, the values of 1≥m5 ≥ 0 are subject to UE capability and applicable to RRC connected UEs. If m5=1, then m1≤1.Note 12: For a UE supporting MBS broadcast reception in RRC\_CONNECTED state, it is required to support reception of FDMed MCCH PDSCH and PBCH in Pcell.Note 13: For a UE supporting MBS multicast or broadcast reception in RRC\_CONNECTED state, it is not required to support reception of FDMed MCCH PDSCH/broadcast MTCH PDSCH/multicast MTCH PDSCH and SIB PDSCH in PCell.Note 14: For a UE supporting MBS multicast or broadcast reception in RRC\_CONNECTED state, it is not required to support reception of FDMed broadcast MTCH PDSCH/multicast MTCH PDSCH and PBCH in PCell. |

\*\*\* Unchanged text is omitted \*\*\*