**3GPP TSG-RAN WG1 Meeting #107-eR1-21xxxxx**

**E-meeting, Nov 11th – 19th, 2021**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.1* | | | | | | | | |
| **DRAFT CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.202** | **CR** |  | **rev** |  | **Current version:** | **16.2.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Alignment CR for TS 38.202 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Qualcomm | | | | | | | | | |
| ***Source to TSG:*** | R1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_L1enh\_URLLC-Core | | | | |  | ***Date:*** | | | 2021-11-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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 can be 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In clause 6.2 of TS38.202, the downlink reception types are described. The possible combinations of physical channels are listed. But for cancellation indication, physical channel with CI-RNTI is not listed in the table. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add the missing case of physical channel with CI-RNTI for downlink reception type and its combinations. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Inconsistent specifications | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6.2 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

# 6 Simultaneous transmission and reception of physical channels and physical signals

< Unchanged parts are omitted >

## 6.2 Downlink

The tables 6.2-1, 6.2-2 describe the possible combinations of physical channels that can be received simultaneously in the downlink by one UE. Table 6.2-1 introduces notation for a "Reception Type" which represents a physical channel and any associated transport channel. Table 6.2-2 describes the combinations of these "Reception Types" which are supported by the UE depending on capabilities [8, TS 38.306], and enumerates how many of each can be received simultaneously. The UE shall be able to receive all TBs according to the indication on PDCCH. Any subset of the combinations specified in table 6.2-2 is also supported.

Table 6.2-1: Downlink "Reception Types"

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| "Reception Type" | Physical Channel(s) | Monitored RNTI | Associated Transport Channel | Comment |
| A | PBCH | N/A | BCH |  |
| B | PDCCH+PDSCH | SI-RNTI | DL-SCH | Note 1 |
| C0 | PDCCH | P-RNTI | N/A | Note 1, Note 2 |
| C1 | PDCCH+PDSCH | P-RNTI | PCH | Note 1 |
| D0 | PDCCH+PDSCH | RA-RNTI or Temporary C-RNTI or MsgB-RNTI | DL-SCH | Note 3 |
| D1 | PDCCH+PDSCH | C-RNTI, CS-RNTI, MCS-C-RNTI | DL-SCH |  |
| D2 | PDCCH | C-RNTI, CS-RNTI, MCS-C-RNTI | DL-SCH |  |
| E | PDCCH | C-RNTI | N/A | Note 4 |
| F0 | PDCCH | Temporary C-RNTI | UL-SCH | Note 3 |
| F1 | PDCCH | C-RNTI, CS-RNTI, MCS-C-RNTI | UL-SCH |  |
| G | PDCCH | SFI-RNTI | N/A |  |
| H | PDCCH | INT-RNTI | N/A |  |
| J0 | PDCCH | TPC-PUSCH-RNTI | N/A |  |
| J1 | PDCCH | TPC-PUCCH-RNTI | N/A |  |
| J2 | PDCCH | TPC-SRS-RNTI | N/A |  |
| K | PDCCH | SP-CSI-RNTI | N/A |  |
| L0 | PDCCH | SL-RNTI | SL-SCH |  |
| L1 | PDCCH | SL-CS-RNTI | SL-SCH |  |
| M | PDCCH | SL Semi-Persistent Scheduling V-RNTI | SL-SCH | Note 5 |
| N | PDCCH | PS-RNTI | N/A |  |
| O | PDCCH | AI-RNTI | N/A |  |
| P | PDCCH | CI-RNTI | N/A |  |
| Note 1: These are received from PCell only.  Note 2: In some cases UE is only required to monitor the short message within the DCI for P-RNTI.  Note 3: These are received from PCell or PSCell.  Note 4: This corresponds to PDCCH-ordered PRACH.  Note 5: This corresponds to PDCCH scheduling LTE PC5. | | | | |

Table 6.2-2: Downlink "Reception Type" combinations

|  |  |  |  |
| --- | --- | --- | --- |
| Supported Combinations | | | Comment |
| PCell | PSCell | SCell |
| 1. RRC\_IDLE | | | |
| A + (B and/or C1 and/or D0) + F0 |  |  | Note 1 |
| 2. RRC\_INACTIVE | | | |
| A + (B and/or C1 and/or D0) + F0 |  |  | Note 1 |
| 3. RRC\_CONNECTED | | | |
| (A + C0 + (B and/or (D0 or (m1\*D1+m2\*D2))) + E + F0 + n\*F1 + G + H + J0 + J1 + J2 + K + O + L0 + L1 + M + N + P) | (A + (D0 or (m1\*D1+m2\*D2)) + E + F0 + n\*F1 + G + H + J0 + J1 + J2 + K + O + N + P) | m1\*D1 + m2\*D2 + 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 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. | | | |

< Unchanged parts are omitted >