**3GPP TSG- Meeting #**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** |  | **Current version:** |  |  |
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| *For* [***HE******LP***](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:*** | Correction on DCI format 3\_0 reception | | | | | | | | | |
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| ***Source to WG:*** |  | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** |  | | | | |  | ***Date:*** | | |  |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***Release:*** | | |  |
|  | *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-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
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| ***Reason for change:*** | | According to 38.202, RRC connected UE supports downlink "Reception Type" combination (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) and m1\*D1 + m2\*D2 + E + n\*F1 + G + H + J0 + J1 + J2 + K + O + L0 + L1 + M + P, which means UE can monitor one DCI format 3-0 with CRC scrambled by SL-RNTI (denoted as L0) **PLUS** one DCI format 3-0 with CRC scrambled by SL-CS-RNTI (denoted as L1) simultaneously, where L1 may refer to a SL DG scheduling retransmission corresponding to a SL CG or a SL DCI for SL CG activation/deactivation. However, in 38.213, as cSAI is defined as an accumulative number of PDCCH monitoring occasions where PSSCH transmissions with associated PSFCH receptions are scheduled, only one DG scheduling PSSCH transmissions with associated PSFCH receptions is expected per PDCCH monitoring occasion for cSAI counting. Therefore, for the case of simultaneous reception of a normal SL DG and a SL DG scheduling retransmission corresponding to a SL CG in the same monitoring occasion, it is not clear how the cSAI is indexed. Moreover, as there is only one HARQ-ACK bit per monitoring occasion for type2 HARQ-ACK codebook, it is also unclear how to determine the HARQ-ACK report for the two DGs in this case.  Thus, the following agreement is made in RAN1#110 to resolve this issue.  **Agreement**  Proposal 1 in R1-2207930 is endorsed. | | | | | | | | |
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| ***Summary of change:*** | | Clarify that UE is not expected to receive one DCI format 3-0 with CRC scrambled by SL-RNTI **and** one DCI format 3-0 scheduling retransmission corresponding to a SL CG with CRC scrambled by SL-CS-RNTI simultaneously in the same monitoring occasion. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incorrect understanding of DCI format 3-0 reception, cSAI counting, and HARQ-ACK codebook generation. | | | | | | | | |
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| ***Clauses affected:*** | | 16.5.2.1 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
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| ***Other comments:*** | | This CR aligns with RAN1 common understanding. | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

#### 16.5.2.1 Type-2 HARQ-ACK codebook in physical uplink control channel

A UE determines monitoring occasions for PDCCH with DCI format 3\_0 for scheduling PSSCH transmissions with associated PSFCH reception occasions on an active DL BWP of a serving cell , as described in clause 10.1, and for which the UE transmits HARQ-ACK information in a same PUCCH in slot based on

- PSFCH-to-HARQ feedback timing indicator field values, or a value provided by *sl-PSFCH-ToPUCCH-CG-Type1*, for PUCCH transmission with HARQ-ACK information in slot in response to PSFCH receptions;

- time gap field in DCI format 3\_0 for scheduling PSSCH transmissions with associated PSFCH receptions;

- time resource assignment in DCI format 3\_0 for scheduling PSSCH transmissions with associated PSFCH receptions;

- a configured sidelink resource pool bitmap;

- a value of a period of PSFCH resources provided in *sl-PSFCH-Period*;

- a value of a minimum time gap provided in *sl-MinTimeGapPSFCH*.

The set of PDCCH monitoring occasions for DCI format 3\_0 for scheduling PSSCH transmissions with associated PSFCH reception occasions is defined as the PDCCH monitoring occasions in the active DL BWP of the configured serving cell, indexed in ascending order of start time of the associated search space sets. The cardinality of the set of PDCCH monitoring occasions defines a total number of PDCCH monitoring occasions. A UE is not expected to receive a DCI format 3-0 with CRC scrambled by SL-RNTI and a DCI format 3-0 with CRC scrambled by SL-CS-RNTI for scheduling retransmission corresponding to a SL configured grant Type 1 or a sidelink configured grant Type 2 simultaneously in a same monitoring occasion.

A value of a counter sidelink assignment indicator (SAI) field in DCI format 3\_0, excluding DCI format 3\_0 for the SL configured grant Type 2 activation, denotes an accumulative number of PDCCH monitoring occasions where PSSCH transmissions with associated PSFCH receptions are scheduled, up to a current PDCCH monitoring occasion, in ascending order of PDCCH monitoring occasion index , where