**3GPP TSG-RAN WG2 Meeting #115-eR2-2109001**

**Electronic Meeting, August 9 – 27, 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **38.321** | **CR** | **1127** | **rev** | **1** | **Current version:** | **16.5.0** |  |
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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 |  | Core Network |  |

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| ***Title:***  | Correction on condition of setting the resource reservation interval for mode 2 |
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| ***Source to WG:*** | Sharp, ZTE Corporation, Sanechips, OPPO |
| ***Source to TSG:*** | R2 |
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| ***Work item code:*** | 5G\_V2X\_NRSL-Core |  | ***Date:*** | 2021-09-03 |
|  |  |  |  |  |
| ***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 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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | According to TS38.321, the next PSSCH duration can be a retransmission duration of current MAC PDU or a transmission duration for a new MAC PDU. The resource reservation interval should be based on whether the selected sidelink grant is used for new MAC PDU. If the MAC entity decides not to use the selected sidelink grant for the next PSSCH duration which is used for retransmission, and if the selected sidelink grant is also reserved for transmission(s) of other new MAC PDU(s), it is incorrect to set the resource reservation interval to 0ms. |
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| ***Summary of change:*** | Change “for the next PSSCH duration” to “for the next PSSCH duration corresponding to an initial transmission opportunity”. **Impact Analysis**Impacted 5G architecture option:NR StandaloneImpacted functionality: SCI transmission for resource allocation mode 2Inter-Operability:1. if the network is implemented according to the CR and the UE is not, there is no inter-opterability problem, since this CR is only for UE internal processsing.2. If UE is implemented according to the CR and the network is not, there is no inter-operability problem, since this CR is only for UE internal processsing.3. If one UE is implemented according to the CR and the other UE is not, there is no inter-operability problem, since the selected sidelink grant which is indicated as no longer to be used will still be correctly considered by another UE’s sensing procedure, which is always compatible in regardless of this change. |
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| ***Consequences if not approved:*** | Incorrect condition of setting the resource reservation interval to 0ms. |
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| ***Clauses affected:*** | 5.22.1.1 |
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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's revision history:*** |  |

5.22.1.1 SL Grant reception and SCI transmission

< Unchanged parts are omitted >

The MAC entity shall for each PSSCH duration:

1> for each sidelink grant occurring in this PSSCH duration:

2> select a MCS table allowed in the pool of resource which is associated with the sidelink grant;

NOTE 4a: MCS table selection is up to UE implementation if more than one MCS table is configured.

2> if the MAC entity has been configured with Sidelink resource allocation mode 1:

3> select a MCS which is, if configured, within the range that is configured by RRC between *sl-MinMCS-PSSCH* and *sl-MaxMCS-PSSCH* associated with the selected MCS table included in *sl-ConfigDedicatedNR*;

3> set the resource reservation interval to 0ms.

2> else:

3> select a MCS which is, if configured, within the range that is configured by RRC between *sl-MinMCS-PSSCH* and *sl-MaxMCS-PSSCH* associated with the selected MCS table included in *sl-PSSCH-TxConfigList* and, if configured by RRC, overlapped between *sl-MinMCS-PSSCH* and *sl-MaxMCS-PSSCH* associated with the selected MCS table indicated in *sl-CBR-PriorityTxConfigList* for the highest priority of the sidelink logical channel(s) in the MAC PDU and the CBR measured by lower layers according to clause 5.1.27 of TS 38.215 [24] if CBR measurement results are available or the corresponding *sl-defaultTxConfigIndex* configured by RRC if CBR measurement results are not available;

3> if the MAC entity decides not to use the selected sidelink grant for the next PSSCH duration corresponding to an initial transmission opportunity:

4> set the resource reservation interval to 0ms.

3> else:

4> set the resource reservation interval to the selected value.

NOTE 5: MCS selection is up to UE implementation if the MCS or the corresponding range is not configured by RRC.

2> if the configured sidelink grant has been activated and this PSSCH duration corresponds to the first PSSCH transmission opportunity within this *sl-PeriodCG* of the configured sidelink grant:

3> set the HARQ Process ID to the HARQ Process ID associated with this PSSCH duration and, if available, all subsequent PSSCH duration(s) occuring in this *sl-PeriodCG* for the configured sidelink grant;

3> determine that this PSSCH duration is used for initial transmission;

3> flush the HARQ buffer of Sidelink process associated with the HARQ Process ID.

2> deliver the sidelink grant, the selected MCS, and the associated HARQ information to the Sidelink HARQ Entity for this PSSCH duration.

For configured sidelink grants, the HARQ Process ID associated with the first slot of a SL transmission is derived from the following equation:

HARQ Process ID = [floor(CURRENT\_slot / *PeriodicitySL*)] modulo *sl-NrOfHARQ-Processes* + *sl-HARQ-ProcID-offset*

where CURRENT\_slot refers to current logical slot in the associated resource pool, and *PeriodicitySL* is defined in clause 5.8.3.