**3GPP TSG-RAN WG1 Meeting #108-e *R1-2202688***

**e-Meeting, February 21st - March** **3rd**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.213** | **CR** | **0280** | **rev** |  | **Current version:** | **16.8.0** |  |
|  | | | | | | | | |
| *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:*** | CR on UE procedure for receiving HARQ-ACK on sidelink | | | | | | | | | |
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| ***Source to WG:*** | Moderator (vivo), Apple, Huawei, HiSilicon, Ericsson, ZTE, Sanechip, Nokia, Nokia Shanghai Bell | | | | | | | | | |
| ***Source to TSG:*** | R1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | 5G\_V2X\_NRSL-Core | | | | |  | ***Date:*** | | | 2022-02-26 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
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| ***Reason for change:*** | | In Section 16.3.1 in 38.213, the first sentence **‘if the UE receives a PSFCH**’ for groupcast option1 case is contradictory with the sub-bullet ‘**if the UE determines absence of PSFCH reception**’, thus should be corrected. | | | | | | | | |
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| ***Summary of change:*** | | Modify ‘if the UE receives a PSFCH associated with a SCI’ to ‘if the PSFCH reception occasion is associated with a SCI’. | | | | | | | | |
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| ***Consequences if not approved:*** | | Incorrect description for HARQ-ACK generation in the case of groupcast option1. | | | | | | | | |
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| ***Clauses affected:*** | | 16.3.1 | | | | | | | | |
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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 ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | **Isolated impact analysis:**  This CR aligns with RAN1 common understanding. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### 16.3.1 UE procedure for receiving HARQ-ACK on sidelink

A UE that transmitted a PSSCH scheduled by a SCI format 2-A or a SCI format 2-B that indicates HARQ feedback enabled, attempts to receive associated PSFCHs according to PSFCH resources determined as described in clause 16.3. The UE determines an ACK or a NACK value for HARQ-ACK information provided in each PSFCH resource as described in [8-4, TS 38.101-4]. The UE does not determine both an ACK value and a NACK value at a same time for a PSFCH resource.

For each PSFCH reception occasion, from a number of PSFCH reception occasions, the UE generates HARQ-ACK information to report to higher layers. For generating the HARQ-ACK information, the UE can be indicated by a SCI format to perform one of the following

- if the UE receives a PSFCH associated with a SCI format 2-A with Cast type indicator field value of "10"

- report to higher layers HARQ-ACK information with same value as a value of HARQ-ACK information that the UE determines from the PSFCH reception

- if the UE receives a PSFCH associated with a SCI format 2-A with Cast type indicator field value of "01"

- report an ACK value to higher layers if the UE determines an ACK value from at least one PSFCH reception occasion from the number of PSFCH reception occasions in PSFCH resources corresponding to every identity of UEs that the UE expects to receive corresponding PSSCHs as described in clause 16.3; otherwise, report a NACK value to higher layers

- if the PSFCH reception occasion is associated with a SCI format 2-B or a SCI format 2-A with Cast type indicator field value of "11"

- report to higher layers an ACK value if the UE determines absence of PSFCH reception for the PSFCH reception occasion; otherwise, report a NACK value to higher layers