**3GPP TSG-RAN WG1 Meeting #110bis-eR1-221xxxx**

**e-Meeting, October 10– 19, 2022**

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| *CR-Form-v12.2* |
| **DRAFT CHANGE REQUEST** |
|  |
|  | **38.213** | **CR** | **xxxx** | **rev** |  | **Current version:** | **17.3.0** |  |
|  |
| *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:***  | Draft CR on PUCCH resource determination of multicast HARQ-ACK |
|  |  |
| ***Source to WG:*** |  Moderator (Huawei), Samsung |
| ***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:*** | The specifications are currently missing the resource determination for a PUCCH with HARQ-ACK for multicast DCI-based PDSCHs and HARQ-ACK for multicast SPS PDSCHs when corresponding HARQ-ACK reporting modes are different (ACK/NACK and NACK-only mode 2). |
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| ***Summary of change:*** | If a UE multiplexes in a PUCCH only first HARQ-ACK information associated with multicast SPS PDSCH receptions and second HARQ-ACK information associated with multicast DCI formats and having same priority value as the first HARQ-ACK information, and the first and second HARQ-ACK information are according to different HARQ-ACK reporting modes, the UE determines the PUCCH resource based on:- *sps-PUCCH-AN-ListMulticast*, or *sps-PUCCH-AN-List* if *sps-PUCCH-AN-ListMulticast* is not provided, if the first HARQ-ACK information is according to the first HARQ-ACK reporting mode or - the last multicast DCI format, as described in clause 9.2.3, if the second HARQ-ACK information is according to the first HARQ-ACK reporting mode.  |
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| ***Consequences if not approved:*** | UE behaviour is unclear regarding PUCCH resource determination for multiplexing HARQ-ACK for multicast DCI-based PDSCHs and HARQ-ACK for multicast SPS PDSCHs when corresponding HARQ-ACK reporting modes are different (ACK/NACK and NACK-only mode 2). |
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| ***Clauses affected:*** | 18 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

# 18 Multicast Broadcast Services

< Unchanged parts are omitted >

If a UE multiplexes in a PUCCH only first HARQ-ACK information associated with multicast SPS PDSCH receptions and second HARQ-ACK information associated with multicast DCI formats and having same priority value as the first HARQ-ACK information, and both the first and second HARQ-ACK information are according to the first HARQ-ACK reporting mode, the UE determines the PUCCH resource based on the last multicast DCI format, as described in clause 9.2.3.

If a UE multiplexes in a PUCCH only first HARQ-ACK information associated with multicast SPS PDSCH receptions and second HARQ-ACK information associated with multicast DCI formats and having same priority value as the first HARQ-ACK information, and the first and second HARQ-ACK information are according to different HARQ-ACK reporting modes, the UE determines the PUCCH resource based on:

- *sps-PUCCH-AN-ListMulticast*, or *sps-PUCCH-AN-List* if *sps-PUCCH-AN-ListMulticast* is not provided, if the first HARQ-ACK information is according to the first HARQ-ACK reporting mode or

- the last multicast DCI format, as described in clause 9.2.3, if the second HARQ-ACK information is according to the first HARQ-ACK reporting mode.

< Unchanged parts are omitted >