**3GPP TSG-RAN WG1 Meeting #105-e *R1-210xxxx***

**e-Meeting, May 10th-27th, 2021**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.213** | **CR** | **XXX** | **rev** | **-** | **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>*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Rel-16 editorial corrections for TS 38.213 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_L1enh\_URLLC-Core, 5G\_V2X\_NRSL | | | | |  | ***Date:*** | | | 2021-05-27 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | A |  | | | | | ***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-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. Correct to in Clause 4.3. 2. Clarify that *pdsch-HARQ-ACK-Codebook* is replaced by the relevant entry in *pdsch-HARQ-ACK-CodebookList-r16* when a UE is provided *pdsch-HARQ-ACK-CodebookList-r16* in Clause 9. 3. Typo in a leftover “+1” in Clause 9.1.2. 4. Correct a typo of to in Clause 9.1.3.1. 5. There is a cyclic dependence between and for groupcast and broadcast when *sl-P0-PSSCH-PSCCH* is provided in Clause 16.2.1. 6. Align terminology with TS 38.306 for using ‘carrier’ instead of ‘serving cell’ and include the case where a UE is not capable of simultaneous transmission on the UL and reception on the SL in two respective carriers in Clause 16.2.4.3 7. Missing reference to Clauses 9 and 9.2.6 in Clause 16.2.4.3.1. | | | | | | | | |
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| ***Summary of change:*** | | 1. Change to in Clause 4.3. 2. Add “the relevant entry in” in Clause 9. 3. Remove a “+1” from in Clause 9.1.2. 4. Change to in Clause 9.1.3.1. 5. Remove the description for the determination for when *sl-P0-PSSCH-PSCCH* is provided in Clause 16.2.1. 6. Replace ‘serving cell’ by ‘carrier’ and include missing case for UL/SL transmission/reception in Clause 16.2.4.3 7. Add reference to Clauses 9 and 9.2.6 in Clause 16.2.4.3.1. | | | | | | | | |
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| ***Consequences if not approved:*** | | Inconsistent specifications | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3, 9, 9.1.2, 9.1.3.1, 16.2.1, 16.2.4.3, 16.2.4.3.1 | | | | | | | | |
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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:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## 4.3 Timing for secondary cell activation / deactivation

With reference to slots for PUCCH transmissions each consisting of symbols as defined in [4, TS 38.211], when a UE receives in a PDSCH an activation command [11, TS 38.321] for a secondary cell ending in slot *n*, the UE applies the corresponding actions in [11, TS 38.321] no later than the minimum requirement defined in [10, TS 38.133] and no earlier than slot , except for the following:

- the actions related to CSI reporting on a serving cell that is active in slot 

- the actions related to the *sCellDeactivationTimer* associated with the secondary cell [11, TS 38.321] that the UE applies in slot 

- the actions related to CSI reporting on a serving cell which is not active in slot  that the UE applies in the earliest slot after  in which the serving cell is active.

The value of  is where slot *n*+*m* is a slot indicated for PUCCH transmission with HARQ-ACK information for the PDSCH reception as described in Clause 9.2.3 and  is a number of slots per subframe for the SCS configuration  of the PUCCH transmission as defined in [4, TS 38.211].



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# 9 UE procedure for reporting control information

If a UE is configured with a SCG, the UE shall apply the procedures described in this clause for both MCG and SCG.

- When the procedures are applied for MCG, the terms 'secondary cell', 'secondary cells' , 'serving cell', 'serving cells' in this clause refer to secondary cell, secondary cells, serving cell, serving cells belonging to the MCG respectively.

- When the procedures are applied for SCG, the terms 'secondary cell', 'secondary cells', 'serving cell', 'serving cells' in this clause refer to secondary cell, secondary cells (not including PSCell), serving cell, serving cells belonging to the SCG respectively. The term 'primary cell' in this clause refers to the PSCell of the SCG.

If a UE is configured with a PUCCH-SCell, the UE shall apply the procedures described in this clause for both primary PUCCH group and secondary PUCCH group

- When the procedures are applied for the primary PUCCH group, the terms 'secondary cell', 'secondary cells' , 'serving cell', 'serving cells' in this clause refer to secondary cell, secondary cells, serving cell, serving cells belonging to the primary PUCCH group respectively.

- When the procedures are applied for secondary PUCCH group, the terms 'secondary cell', 'secondary cells', 'serving cell', 'serving cells' in this clause refer to secondary cell, secondary cells (not including the PUCCH-SCell), serving cell, serving cells belonging to the secondary PUCCH group respectively. The term 'primary cell' in this clause refers to the PUCCH-SCell of the secondary PUCCH group. If *pdsch-HARQ-ACK-Codebook-secondaryPUCCHgroup-r16* is provided, *pdsch-HARQ-ACK-Codebook* is replaced by *pdsch-HARQ-ACK-Codebook-secondaryPUCCHgroup-r16*. If *harq-ACK-SpatialBundlingPUCCH-secondaryPUCCHgroup* is provided, *harq-ACK-SpatialBundlingPUCCH* is replaced by *harq-ACK-SpatialBundlingPUCCH-secondaryPUCCHgroup*. If *harq-ACK-SpatialBundlingPUSCH-secondaryPUCCHgroup* is provided, *harq-ACK-SpatialBundlingPUSCH* is replaced by *harq-ACK-SpatialBundlingPUSCH-secondaryPUCCHgroup*.

If a UE is provided *pdsch-HARQ-ACK-CodebookList-r16*, *pdsch-HARQ-ACK-Codebook* is replaced by the relevant entry in *pdsch-HARQ-ACK-CodebookList-r16*.

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

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If , the UE also determines for obtaining a PUCCH transmission power, as described in Clause 7.2.1, with

where

- if , is the value of the counter DAI in the last DCI format scheduling CBG-based PDSCH reception for any serving cell that the UE detects within the PDCCH monitoring occasions

- if ,, is the value of the total DAI in the last DCI format scheduling CBG-based PDSCH reception for any serving cell that the UE detects within the PDCCH monitoring occasions

- , if the UE does not detect any DCI format scheduling CBG-based PDSCH reception for any serving cell in any of the PDCCH monitoring occasions

- is the total number of DCI formats scheduling CBG-based PDSCH receptions that the UE detects within the PDCCH monitoring occasions for serving cell . if the UE does not detect any DCI format scheduling CBG-based PDSCH reception for serving cell in any of the PDCCH monitoring occasions

- is the number of CBGs the UE receives in a PDSCH scheduled by a DCI format that supports CBG-based PDSCH reception that the UE detects in PDCCH monitoring occasion for serving cell and the UE reports corresponding HARQ-ACK information in the PUCCH

<omitted text>

9.1.2 Type-1 HARQ-ACK codebook determination

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If the UE is provided *pdsch-AggregationFactor-r16* in *SPS-Config* or *pdsch-AggregationFactor* in *PDSCH-Config* and no entry in *pdsch-TimeDomainAllocationList* and *pdsch-TimeDomainAllocationListDCI-1-2* includes *repetitionNumber* in *PDSCH-TimeDomainResourceAllocation-r16*, is a maximum value of *pdsch-AggregationFactor-r16* in *SPS-Config* or *pdsch-AggregationFactor* in *PDSCH-Config*; otherwise . The UE reports HARQ-ACK information for a PDSCH reception

- from DL slot to DL slot , if is provided by *pdsch-AggregationFactor* or *pdsch-AggregationFactor-r16* [6, TS 38.214], or

- from DL slot to DL slot , if the time domain resource assignment field in the DCI format scheduling the PDSCH reception indicates an entry containing *repetitionNumber,* or

- in DL slot , otherwise

only in a HARQ-ACK codebook that the UE includes in a PUCCH or PUSCH transmission in slot , where is a UL slot overlapping with the end of the PDSCH reception in DL slot and is a number of slots indicated by the PDSCH-to-HARQ\_feedback timing indicator field in a corresponding DCI format or provided by *dl-DataToUL-ACK* if the PDSCH-to-HARQ\_feedback timing indicator field is not present in the DCI format. If the UE reports HARQ-ACK information for the PDSCH reception in a slot other than slot , the UE sets a value for each corresponding HARQ-ACK information bit to NACK.

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### 16.2.1 PSSCH

A UE determines a power for a PSSCH transmission on a resource pool in symbols where a corresponding PSCCH is not transmitted in PSCCH-PSSCH transmission occasion as:

[dBm]

where

- is defined in [8-1, TS 38.101-1]

- is determined by a value of *sl-MaxTransPower* based on a priority level of the PSSCH transmission and a CBR range that includes a CBR measured in slot [6, TS 38.214]; if *sl-MaxTransPower-r16* is not provided, then ;

- if *dl-P0-PSSCH-PSCCH* is provided

- [dBm]

- else

- [dBm]

where

- is a value of *dl-P0-PSSCH-PSCCH* if provided

- is a value of *dl-Alpha-PSSCH-PSCCH*, if provided; else,

- as described in Clause 7.1.1 except that

- the RS resource is the one the UE uses for determining a power of a PUSCH transmission scheduled by a DCI format 0\_0 when the UE is configured to monitor PDCCH for detection of DCI format 0\_0

- the RS resource is the one corresponding to the SS/PBCH block the UE uses to obtain MIB when the UE is not configured to monitor PDCCH for detection of DCI format 0\_0

- is a number of resource blocks for the PSSCH transmission occasion and is a SCS configuration

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#### 16.2.4.3 Simultaneous SL and UL transmissions/receptions

If a UE

- would simultaneously transmit on the UL and on the SL in a carrier or in two respective carriers, and

- the UE is not capable of simultaneous transmissions on the UL and on the SL in the carrier or in the two respective carriers

the UE transmits only on the link, UL or SL, with the higher priority.

If a UE

- would simultaneously transmit on the UL and receive on the SL in a carrier, or

- would simultaneously transmit on the UL and receive on the SL in two respective carriers and the UE is not capable of simultaneous transmission on the UL and reception on the SL in the two respective carriers

the UE transmits on UL or receives on SL, with the higher priority.

If a UE

- is capable of simultaneous transmissions on the UL and on the SL in two respective carriers,

- would transmit on the UL and on the SL in the two respective carriers,

- the transmission on the UL would overlap with the transmission on the SL over a time period, and

- the total UE transmission power over the time period would exceed

the UE

- reduces the power for the UL transmission prior to the start of the UL transmission, if the SL transmission has higher priority than the UL transmission as determined in Clause 16.2.4.3.1, so that the total UE transmission power would not exceed

- reduces the power for the SL transmission prior to the start of the SL transmission, if the UL transmission has higher priority than the SL transmission as determined in Clause 16.2.4.3.1, so that the total UE transmission power would not exceed

##### 16.2.4.3.1 Prioritizations for sidelink and uplink transmissions/receptions

A UE performs prioritization between SL transmissions/receptions and UL transmissions after performing the procedures described in Clause 9, Clause 9.2.5, and Clause 9.2.6, and in Clause 6.1 of [6, TS 38.214].

PSFCH transmissions in a slot have a same priority value as the smallest priority value among PSSCH receptions with corresponding HARQ-ACK information provided by the PSFCH transmissions in the slot.

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