[103-e-NR-Rel-16-V2X-08]: Email discussion/approval of CRs for the agreements from previous meetings (Physical layer structure) by 10/30 - Jeongho (Samsung)

List of changes

* Draft CR#1: [38.213 16] Periodicity of resource pool configuration and bitmap [OPPO]
* Editorial CRs
	+ #2 [38.211, 8.4.1.2.2] Typos in clause of PT-RS mapping [CATT]
	+ #3 [38.211 8.3.1.2] Table number for 211 [Intel]
	+ #4 [38.212 8.4.1.1/2 and 38.214 8.1] name of HARQ process number to sidelink process ID [vivo]
	+ #5 [38.214 8.1.3] RV description [ZTE, Sanechips]

# **Draft CR#1. Periodicity of resource pool bitmap**

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| ***Clauses affected and spec*** | Clause 16 of TS38.213 |
| ***Reason for change:*** | In RAN1#101-e, it was agreed that the periodicity of resource pool bitmap is 10240 ms. The higher layer parameter ‘*periodResourcePool*’ is not defined and not needed. |
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| ***Summary of change:*** | The higher layer parameter ‘*periodResourcePool*’ is replaced by ‘10240 ms’. |
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| ***Consequences if not approved:*** | It is unclear what ‘periodResourcePool’ and the periodicity of resource pool bitmap mean. |

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| ----------------------------------------- Begin Text proposal of TS38.213 -------------------------------------16 UE procedures for sidelinkA UE is provided by *locationAndBandwidth-SL* a BWP for SL transmissions (SL BWP) with numerology and resource grid determined as described in [4, TS38.211]. For a resource pool within the SL BWP, the UE is provided by *numSubchannel* a number of sub-channels where each sub-channel includes a number of contiguous RBs provided by *subchannelsize*. The first RB of the first sub-channel in the SL BWP is indicated by *startRB-Subchannel*. Available slots for a resource pool are provided by *timeresourcepool* and occur with a periodicity of 10240 ms. For an available slot without S-SS/PSBCH blocks, SL transmissions can start from a first symbol indicated by *startSLsymbols* and be within a number of consecutive symbols indicated by *lengthSLsymbols*. For an available slot with S-SS/PSBCH blocks, the first symbol and the number of consecutive symbols is predetermined. <Unchanged text is omitted>-------------------------------------------- End Text proposal of TS38.213 ------------------------------------- |

Please provide your views and reason.

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# **Draft Editorial CRs**

## Draft CR#2. Typos in clause of PT-RS mapping in Clause 8.4.1.2.2 of TS38.211

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| ----------------------------------------- Begin Text proposal of TS38.211 -------------------------------------8.4.1.2.2 Mapping to physical resources<Unchanged text is omitted>The set of time indices $l$ defined relative to the start of the PSSCH allocation is defined by1. set $i=0 $and $l\_{ref}=0$2. if any symbol in the interval $max \left(l\_{ref}+\left(i-1\right)L\_{PT-RS}+1, l\_{ref}\right),…,l\_{ref}+iL\_{PT-RS}$ overlaps with a symbol used for DM-RS according to clause 8.4.1.1.2- set $i=1$- set $l\_{ref}$ to the symbol index of the DM-RS symbol- repeat from step 2 as long as $l\_{ref}+iL\_{PT-RS}$ is inside the PSSCH allocation<Unchanged text is omitted>-------------------------------------------- End Text proposal of TS38.211 ------------------------------------- |

## Draft CR#3. Table number in Clause 8.3.1.2 of TS38.211

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| ----------------------------------------- Begin Text proposal of TS38.211 -------------------------------------8.3.1.2 ModulationFor the single codeword $q=0$, the block of scrambled bits shall be modulated, resulting in a block of complex-valued modulation symbols $d^{(q)}\left(0\right),…,d^{(q)}\left(M\_{symb}^{(q)}-1\right)$ where $M\_{symb}^{(q)}=M\_{symb,1}^{(q)}+M\_{symb,2}^{(q)}$.Modulation for $0\leq i<M\_{bit,SCI2}^{(q)}$ shall be done as described in clause 5.1 using QPSK, where $M\_{symb,1}^{(q)}={M\_{bit,SCI2}^{(q)}}/{2}$.Modulation for $M\_{bit,SCI2}^{(q)}\leq i< M\_{bit}^{(q)}$ shall be done as described in clause 5.1 using one of the modulation schemes in Table 8.3.1.2-1 where $M\_{symb,2}^{(q)}={M\_{bit,data}^{(q)}}/{Q\_{m}}$.**Table 8.3.1.2-1: Supported modulation schemes.**

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| **Modulation scheme** | **Modulation order** $Q\_{m}$ |
| QPSK | 2 |
| 16QAM | 4 |
| 64QAM | 6 |
| 256QAM | 8 |

<Unchanged text is omitted>-------------------------------------------- End Text proposal of TS38.211 ------------------------------------- |

## Draft CR#4. name of HARQ process number to sidelink process ID in TS38.212 and TS38.214

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| ----------------------------------------- Begin Text proposal of TS38.212 -------------------------------------8.4.1.1 SCI format 2-ASCI format 2-A is used for the decoding of PSSCH, with HARQ operation when HARQ-ACK information includes ACK or NACK, when HARQ-ACK information includes only NACK, or when there is no feedback of HARQ-ACK information.The following information is transmitted by means of the SCI format 2-A:- sidelink process ID – $4$ bits as defined in clause 16.4 of [5, TS 38.213].<Unchanged text is omitted>8.4.1.2 SCI format 2-BSCI format 2-B is used for the decoding of PSSCH, with HARQ operation when HARQ-ACK information includes only NACK, or when there is no feedback of HARQ-ACK information.The following information is transmitted by means of the SCI format 2-B:- sidelink process ID – $4$ bits as defined in clause 16.4 of [5, TS 38.213].<Unchanged text is omitted>-------------------------------------------- End Text proposal of TS38.212 ------------------------------------- |

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| ----------------------------------------- Begin Text proposal of TS38.214 -------------------------------------8.1 UE procedure for transmitting the physical sidelink shared channel<Unchanged text is omitted>The UE shall set the contents of the SCI format 2-A as follows:- the UE shall set value of the "sidelink process ID" field as indicated by higher layers.<Unchanged text is omitted>The UE shall set the contents of the SCI formats 2-B as follows:- the UE shall set value of the "sidelink process ID" field as indicated by higher layers.<Unchanged text is omitted>-------------------------------------------- End Text proposal of TS38.214 ------------------------------------- |

## Draft CR#5. RV description in TS38.214

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| ----------------------------------------- Begin Text proposal of TS38.214 -------------------------------------8.1.3 Modulation order, target code rate, redundancy version and transport block size determinationThe redundancy version is given by the “Redundancy version field” field in SCI format 2-A or 2-B.<Unchanged text is omitted>-------------------------------------------- End Text proposal of TS38.214 ------------------------------------- |

Please provide your views and reason including whether the change is needed or not.

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| **Company** | **Views** |
|  | On Draft CR#2:On Draft CR#3:On Draft CR#4:On Draft CR#5: |
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# **Any others?**

If there is any other editorial changes needed, or text proposal that needs to be captured from the previous meetings, please provide issues and text proposals.

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| **Company** | **Views** |
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Reference

1. R1-2007610 Correction on sidelink PT-RS sequence generation Huawei, HiSilicon
2. R1-2007772 Discussion on essential corrections in physical layer structure LG Electronics
3. R1-2007809 Remaining issues on physical layer structure for NR sidelink CATT
4. R1-2007921 Remaining issues of NR sidelink physical layer structure ZTE, Sanechips
5. R1-2007934 Remaining opens of sidelink physical structure for NR V2X design Intel Corporation
6. R1-2008129 Text Proposals on Physical Layer Structures for NR Sidelink Samsung
7. R1-2008230 Draft TP on physical structure for NR sidelink OPPO
8. R1-2008381 Remaining issue on physical layer structure and procedure for sidelink in NR V2X Panasonic Corporation
9. R1-2008387 Remaining issues on physical layer structure for NR sidelink Sharp
10. R1-2008429 Remaining Issue of Sidelink Physical Layer Structure Apple
11. R1-2008496 Maintenance for PSFCH and PSCCH symbol on NR sidelink ASUSTeK
12. R1-2008529 Maintenance for sidelink physical layer structure NTT DOCOMO, INC.
13. R1-2008604 Remaining Issues in Physical Layer Structure Qualcomm Incorporated
14. R1-2008665 Remaining issues on physical layer structure for NR sidelink vivo
15. R1-2008750 Discussion paper on the remaining issues in Rel. 16 for NR V2X Ericsson