**3GPP TSG-RAN WG2 Meeting #111-e *R2-2008347***

**Online, 17 – 28 August 2020**

|  |
| --- |
| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **1997** | **rev** | **-** | **Current version:** | **16.1.0** |  |
|  |
| *For* ***[HELP](http://www.3gpp.org/3G_Specs/CRs.htm%22%20%5Cl%20%22_blank)*** *on using this form: comprehensive instructions can be found at <http://www.3gpp.org/Change-Requests>.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Corrections on RAN1 related clarifications |
|  |  |
| ***Source to WG:*** | ZTE Corporation, Sanechips |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | 5G\_V2X\_NRSL |  | ***Date:*** | 2020-08-28 |
|  |  |  |  |  |
| ***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-12 (Release 12)Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | 1. When UL BWP and SL BWP are configured on a same carrier component, the relationship between the reference SCS of *TDD-UL-DL-ConfigurationCommon*, and the SL SCS follows the existing rule used for Uu link BWP. That is, the reference SCS is configured as not larger than the SL SCS. This point is not clear with the current text. It needs to be explicitly specified that the configured BWP includes UL, DL and SL BWP so that SL SCS is considered in reference SCS determination.

In addition, a UE outside network coverage applies the reference SCS for pre-configuration. Thus, it should be also clarified in the field description that the reference SCS is applied to pre-configuration as well as a serving cell.1. During RAN1#101e meeting, it is agreed that:

*Regarding the number of PRBs configured for a resource pool, all PRBs: UE is not expect to use the remaining PRBs (i.e., not large enough for a full subchannel) in Rel-16.*Which means remaining RB which is equal to sl-RB-Number - sl-SubchannelSize \* sl-NumSubchannel is less than a full subchannel (sl-SubchannelSize). And it cannot be used by the UE.In current TS38.331, there is no description of whether remaining RB can be used.  |
|  |  |
| ***Summary of change:*** | 1. Clarify in the specification that the configured BWP includes UL, DL and SL BWP in configuring the reference SCS for determining TDD UL-DL pattern. Also clarify the out-of-coverage case that the reference SCS in *SL-TDD-Configuration* is not larger than the SL SCS.
2. Add the description that remaining RB which is equal to sl-RB-Number - sl-SubchannelSize \* sl-NumSubchannel cannot be used.

**Impact analysis**Impacted 5G architecture options: StandaloneImpacted functionality:Sidelink RRCInter-operability: 1. If the UE is implemented according to this CR but the network is not, there is no inter-operability issue foreseen.
2. If the network is implemented according to this CR but the UE is not, there is no inter-operability issue foreseen.
3. If one UE is implemented according to this CR but the other UE is not, there is no inter-operability issue foreseen.
 |
|  |  |
| ***Consequences if not approved:*** | 1. It may cause the case where the reference SCS can be determined to be larger than the sidelink SCS, which violates the rule for determining the reference SCS.
2. If the CR is not approved, the UE does not know whether remaining RB can be used.
 |
|  |  |
| ***Clauses affected:*** | 6.3.2, 6.3.5 |
|  |  |
|  | **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:*** |  |

|  |
| --- |
| START OF CHANGE |

<Text omitted>

### 6.3.2 Radio resource control information elements

#### – *TDD-UL-DL-ConfigCommon*

The IE *TDD-UL-DL-ConfigCommon* determines the cell specific Uplink/Downlink TDD configuration.

*TDD-UL-DL-ConfigCommon* information element

-- ASN1START

-- TAG-TDD-UL-DL-CONFIGCOMMON-START

TDD-UL-DL-ConfigCommon ::= SEQUENCE {

 referenceSubcarrierSpacing SubcarrierSpacing,

 pattern1 TDD-UL-DL-Pattern,

 pattern2 TDD-UL-DL-Pattern OPTIONAL, -- Need R

 ...

}

TDD-UL-DL-Pattern ::= SEQUENCE {

 dl-UL-TransmissionPeriodicity ENUMERATED {ms0p5, ms0p625, ms1, ms1p25, ms2, ms2p5, ms5, ms10},

 nrofDownlinkSlots INTEGER (0..maxNrofSlots),

 nrofDownlinkSymbols INTEGER (0..maxNrofSymbols-1),

 nrofUplinkSlots INTEGER (0..maxNrofSlots),

 nrofUplinkSymbols INTEGER (0..maxNrofSymbols-1),

 ...,

 [[

 dl-UL-TransmissionPeriodicity-v1530 ENUMERATED {ms3, ms4} OPTIONAL -- Need R

 ]]

}

-- TAG-TDD-UL-DL-CONFIGCOMMON-STOP

-- ASN1STOP

|  |
| --- |
| *TDD-UL-DL-ConfigCommon* field descriptions |
| ***referenceSubcarrierSpacing***Reference SCS used to determine the time domain boundaries in the UL-DL pattern which must be common across all subcarrier specific carriers, i.e., independent of the actual subcarrier spacing using for data transmission. Only the values 15, 30 or 60 kHz (FR1), and 60 or 120 kHz (FR2) are applicable. The network configures a not larger than any SCS of configured BWPs for the serving cell. ~~For sidelink, SCS of configured SL BWP or SL-PreconfigGeneral is larger than or equal to the value.~~The network or *SL-PreconfigGeneral* configures a not larger than the SCS of (pre)configured SL BWP See TS 38.213 [13], clause 11.1. |

|  |
| --- |
| *TDD-UL-DL-Pattern* field descriptions |
| ***dl-UL-TransmissionPeriodicity***Periodicity of the DL-UL pattern, see TS 38.213 [13], clause 11.1. If the *dl-UL-TransmissionPeriodicity-v1530* is signalled, UE shall ignore the *dl-UL-TransmissionPeriodicity* (without suffix). |
| ***nrofDownlinkSlots***Number of consecutive full DL slots at the beginning of each DL-UL pattern, see TS 38.213 [13], clause 11.1. In this release, the maximum value for this field is 80. |
| ***nrofDownlinkSymbols***Number of consecutive DL symbols in the beginning of the slot following the last full DL slot (as derived from *nrofDownlinkSlots*). The value 0 indicates that there is no partial-downlink slot. (see TS 38.213 [13], clause 11.1). |
| ***nrofUplinkSlots***Number of consecutive full UL slots at the end of each DL-UL pattern, see TS 38.213 [13], clause 11.1. In this release, the maximum value for this field is 80. |
| ***nrofUplinkSymbols***Number of consecutive UL symbols in the end of the slot preceding the first full UL slot (as derived from *nrofUplinkSlots*). The value 0 indicates that there is no partial-uplink slot. (see TS 38.213 [13], clause 11.1). |

|  |
| --- |
| NEXT CHANGE |

### 6.3.5 Sidelink information elements

#### – *SL-ResourcePool*

The IE *SL-ResourcePool* specifies the configuration information for NR sidelink communication resource pool.

*SL-ResourcePool* information element

-- ASN1START

-- TAG-SL-RESOURCEPOOL-START

SL-ResourcePool-r16 ::= SEQUENCE {

 sl-PSCCH-Config-r16 SetupRelease { SL-PSCCH-Config-r16 } OPTIONAL, -- Need M

 sl-PSSCH-Config-r16 SetupRelease { SL-PSSCH-Config-r16 } OPTIONAL, -- Need M

 sl-PSFCH-Config-r16 SetupRelease { SL-PSFCH-Config-r16 } OPTIONAL, -- Need M`

 sl-SyncAllowed-r16 SL-SyncAllowed-r16 OPTIONAL, -- Need M

 sl-SubchannelSize-r16 ENUMERATED {n10, n12, n15, n20, n25, n50, n75, n100} OPTIONAL, -- Need M

 sl-TimeResource-r16 INTEGER (10..160) OPTIONAL, -- Need M

 sl-StartRB-Subchannel-r16 INTEGER (0..265) OPTIONAL, -- Need M

 sl-NumSubchannel-r16 INTEGER (1..27) OPTIONAL, -- Need M

 sl-Additional-MCS-Table-r16 ENUMERATED {qam256, qam64LowSE, qam256-qam64LowSE } OPTIONAL, -- Need M

 sl-ThreshS-RSSI-CBR-r16 INTEGER (0..45) OPTIONAL, -- Need M

 sl-TimeWindowSizeCBR-r16 ENUMERATED {ms100, slot100} OPTIONAL, -- Need M

 sl-TimeWindowSizeCR-r16 ENUMERATED {ms1000, slot1000} OPTIONAL, -- Need M

 sl-PTRS-Config-r16 SL-PTRS-Config-r16 OPTIONAL, -- Need M

 sl-UE-SelectedConfigRP-r16 SL-UE-SelectedConfigRP-r16 OPTIONAL, -- Need M

 sl-RxParametersNcell-r16 SEQUENCE {

 sl-TDD-Configuration-r16 TDD-UL-DL-ConfigCommon OPTIONAL, -- Need M

 sl-SyncConfigIndex-r16 INTEGER (0..15)

 } OPTIONAL, -- Need M

 sl-ZoneConfigMCR-List-r16 SEQUENCE (SIZE (16)) OF SL-ZoneConfigMCR-r16 OPTIONAL, -- Need M

 sl-FilterCoefficient-r16 FilterCoefficient OPTIONAL, -- Need M

 sl-RB-Number-r16 INTEGER (10..275) OPTIONAL, -- Need M

 sl-PreemptionEnable-r16 ENUMERATED {enabled, pl1, pl2, pl3, pl4, pl5, pl6, pl7, pl8} OPTIONAL, -- Need R

 sl-PriorityThreshold-UL-URLLC-r16 INTEGER (1..9) OPTIONAL, -- Need M

 sl-PriorityThreshold-r16 INTEGER (1..9) OPTIONAL, -- Need M

 sl-X-Overhead-r16 ENUMERATED {n0,n3, n6, n9} OPTIONAL, -- Need M

 sl-PowerControl-r16 SL-PowerControl-r16 OPTIONAL, -- Need M

 sl-TxPercentageList-r16 SL-TxPercentageList-r16 OPTIONAL, -- Need M

 sl-MinMaxMCS-List-r16 SL-MinMaxMCS-List-r16 OPTIONAL, -- Need M

...

}

SL-ZoneConfigMCR-r16 ::= SEQUENCE {

 sl-ZoneConfigMCR-Index-r16 INTEGER (0..15),

 sl-TransRange-r16 ENUMERATED {m20, m50, m80, m100, m120, m150, m180, m200, m220, m250, m270, m300, m350,

 m370, m400, m420, m450, m480, m500, m550, m600, m700, m1000, spare8, spare7,

 spare6, spare5, spare4, spare3, spare2, spare1} OPTIONAL, -- Need M

 sl-ZoneConfig-r16 SL-ZoneConfig-r16 OPTIONAL, -- Need M

...

}

SL-SyncAllowed-r16 ::= SEQUENCE {

 gnss-Sync-r16 ENUMERATED {true} OPTIONAL, -- Need R

 gnbEnb-Sync-r16 ENUMERATED {true} OPTIONAL, -- Need R

 ue-Sync-r16 ENUMERATED {true} OPTIONAL -- Need R

}

SL-PSCCH-Config-r16 ::= SEQUENCE {

 sl-TimeResourcePSCCH-r16 ENUMERATED {n2, n3} OPTIONAL, -- Need M

 sl-FreqResourcePSCCH-r16 ENUMERATED {n10,n12, n15, n20, n25} OPTIONAL, -- Need M

 sl-DMRS-ScrambleID-r16 INTEGER (0..65535) OPTIONAL, -- Need M

 sl-NumReservedBits-r16 INTEGER (2..4) OPTIONAL, -- Need M

 ...

}

SL-PSSCH-Config-r16 ::= SEQUENCE {

 sl-PSSCH-DMRS-TimePatternList-r16 SEQUENCE (SIZE (1..3)) OF INTEGER (2..4) OPTIONAL, -- Need M

 sl-BetaOffsets2ndSCI-r16 SEQUENCE (SIZE (4)) OF SL-BetaOffsets-r16 OPTIONAL, -- Need M

 sl-Scaling-r16 ENUMERATED {f0p5, f0p65, f0p8, f1} OPTIONAL, -- Need M

 ...

}

SL-PSFCH-Config-r16 ::= SEQUENCE {

 sl-PSFCH-Period-r16 ENUMERATED {sl0, sl1, sl2, sl4} OPTIONAL, -- Need M

 sl-PSFCH-RB-Set-r16 BIT STRING (SIZE (10..275)) OPTIONAL, -- Need M

 sl-NumMuxCS-Pair-r16 ENUMERATED {n1, n2, n3, n6} OPTIONAL, -- Need M

 sl-MinTimeGapPSFCH-r16 ENUMERATED {sl2, sl3} OPTIONAL, -- Need M

 sl-PSFCH-HopID-r16 INTEGER (0..1023) OPTIONAL, -- Need M

 sl-PSFCH-CandidateResourceType-r16 ENUMERATED {startSubCH, allocSubCH} OPTIONAL, -- Need M

 ...

}

SL-PTRS-Config-r16 ::= SEQUENCE {

 sl-PTRS-FreqDensity-r16 SEQUENCE (SIZE (2)) OF INTEGER (1..276) OPTIONAL, -- Need M

 sl-PTRS-TimeDensity-r16 SEQUENCE (SIZE (3)) OF INTEGER (0..29) OPTIONAL, -- Need M

 sl-PTRS-RE-Offset-r16 ENUMERATED {offset01, offset10, offset11} OPTIONAL, -- Need M

 ...

}

SL-UE-SelectedConfigRP-r16 ::= SEQUENCE {

 sl-CBR-PriorityTxConfigList-r16 SL-CBR-PriorityTxConfigList-r16 OPTIONAL, -- Need M

 sl-ThresPSSCH-RSRP-List-r16 SL-ThresPSSCH-RSRP-List-r16 OPTIONAL, -- Need M

 sl-MultiReserveResource-r16 ENUMERATED {enabled} OPTIONAL, -- Need M

 sl-MaxNumPerReserve-r16 ENUMERATED {n2, n3} OPTIONAL, -- Need M

 sl-SensingWindow-r16 ENUMERATED {ms100, ms1100} OPTIONAL, -- Need M

 sl-SelectionWindowList-r16 SL-SelectionWindowList-r16 OPTIONAL, -- Need M

 sl-ResourceReservePeriodList-r16 SEQUENCE (SIZE (1..16)) OF SL-ResourceReservePeriod-r16 OPTIONAL, -- Need M

 sl-RS-ForSensing-r16 ENUMERATED {pscch, pssch},

 ...

}

SL-ResourceReservePeriod-r16 ::= CHOICE {

 sl-ResourceReservePeriod1-r16 ENUMERATED {ms0, ms100, ms200, ms300, ms400, ms500, ms600, ms700, ms800, ms900, ms1000},

 sl-ResourceReservePeriod2-r16 INTEGER (1..99)

}

SL-SelectionWindowList-r16 ::= SEQUENCE (SIZE (8)) OF SL-SelectionWindowConfig-r16

SL-SelectionWindowConfig-r16 ::= SEQUENCE {

 sl-Priority-r16 INTEGER (1..8),

 sl-SelectionWindow-r16 ENUMERATED {n1, n5, n10, n20}

}

SL-TxPercentageList-r16 ::= SEQUENCE (SIZE (8)) OF SL-TxPercentageConfig-r16

SL-TxPercentageConfig-r16 ::= SEQUENCE {

 sl-Priority-r16 INTEGER (1..8),

 sl-TxPercentage-r16 ENUMERATED {p20, p35, p50}

}

SL-MinMaxMCS-List-r16 ::= SEQUENCE (SIZE (1..3)) OF SL-MinMaxMCS-Config-r16

SL-MinMaxMCS-Config-r16 ::= SEQUENCE {

 sl-MCS-Table-r16 ENUMERATED {qam64, qam256, qam64LowSE},

 sl-MinMCS-PSSCH-r16 INTEGER (0..27),

 sl-MaxMCS-PSSCH-r16 INTEGER (0..31)

}

SL-BetaOffsets-r16 ::= INTEGER (0..31)

SL-PowerControl-r16 ::= SEQUENCE {

 sl-MaxTransPower-r16 INTEGER (-30..33),

 sl-Alpha-PSSCH-PSCCH-r16 ENUMERATED {alpha0, alpha04, alpha05, alpha06, alpha07, alpha08, alpha09, alpha1} OPTIONAL, -- Need M

 dl-Alpha-PSSCH-PSCCH-r16 ENUMERATED {alpha0, alpha04, alpha05, alpha06, alpha07, alpha08, alpha09, alpha1} OPTIONAL, -- Need M

 sl-P0-PSSCH-PSCCH-r16 INTEGER (-16..15) OPTIONAL, -- Need M

 dl-P0-PSSCH-PSCCH-r16 INTEGER (-16..15) OPTIONAL, -- Need M

 dl-Alpha-PSFCH-r16 ENUMERATED {alpha0, alpha04, alpha05, alpha06, alpha07, alpha08, alpha09, alpha1} OPTIONAL, -- Need M

 dl-P0-PSFCH-r16 INTEGER (-16..15) OPTIONAL, -- Need M

 ...

}

-- TAG-SL-RESOURCEPOOL-STOP

-- ASN1STOP

| *SL-ZoneConfigMCR* field descriptions |
| --- |
| ***sl-TransRange***Indicates the communication range requirement for the corresponding *sl-ZoneConfigMCR-Index*. |
| ***sl-ZoneConfig***Indicates the zone configuration for the corresponding *sl-ZoneConfigMCR-Index*. |
| ***sl-ZoneConfigMCR-Index***Indicates the codepoint of the communication range requirement field in SCI. |

|  |
| --- |
| *SL-ResourcePool* field descriptions |
| ***sl-FilterCoefficient***This field indicates the filtering coefficient for long-term measurement and reference signal power derivation used for sideilnk open-loop power control. |
| ***sl-Additional-MCS-Table***Indicates the MCS table(s) additionally used in the resource pool. 64QAM table is (pre-)configured as default. Zero, one or two can be additionally (pre-)configured using the 256QAM and/or low-SE MCS tables |
| ***sl-NumSubchannel***Indicates the number of subchannels in the corresponding resource pool, which consists of contiguous PRBs only. |
| ***sl-PreemptionEnable***Indiates whether pre-emption is disabled or enabled in a resource pool. If enabled, a priority level p\_preemption can be optionally configured. If the pre-emption is enabled but p\_preemption is not configured, pre-emption is applicable to all levels. |
| ***sl-PriorityThreshold-UL-URLLC***Indicates the threshold used to determine whether SL V2X transmission or PUCCH transmission carrying SL HARQ is prioritized over uplink transmission of priority index 1 if they overlap in time. |
| ***sl-PriorityThreshold***Indicates the threshold used to determine whether SL V2X transmission or PUCCH transmission carrying SL HARQ is prioritized over uplink transmission of priority index 0 if they overlap in time. |
| ***sl-RB-Number***Indicates the number of PRBs in the corresponding resource pool, which consists of contiguous PRBs only. The remaining RB cannot be used (See TS 38.214[19], clause 8). ~~by UE if it is less than sl-SubchannelSize, where the remaining RB is equal to sl-RB-Number - sl-SubchannelSize \* sl-NumSubchannel~~ |
| ***sl-StartRB-Subchannel***Indicates the lowest RB index of the subchannel with the lowest index in the resource pool with respect to the lowest RB index of a SL BWP. |
| ***sl-SubchannelSize***Indicates the minimum granularity in frequency domain for the sensing for PSSCH resource selection in the unit of PRB. |
| ***sl-SyncAllowed***Indicates the allowed synchronization reference(s) which is (are) allowed to use the configured resource pool. |
| ***sl-SyncConfigIndex***Indicates the synchronisation configuration that is associated with a reception pool, by means of an index to the corresponding entry *SL-SyncConfigList* of in *SIB12* for NR sidelink communication. |
| ***sl-TDD-Configuration***Indicates the TDD configuration associated with the reception pool of the cell indicated by *sl-SyncConfigIndex*. |
| ***sl-ThreshS-RSSI-CBR***Indicates the S-RSSI threshold for determining the contribution of a sub-channel to the CBR measurement. Value 0 corresponds to -112 dBm, value 1 to -110 dBm, value n to (-112 + n\*2) dBm, and so on. |
| ***sl-TimeResource***Indicates the bitmap of the resource pool, which is defined by repeating the bitmap with a periodicity during a SFN or DFN cycle. |
| ***sl-TimeWindowSizeCBR***Indicates the time window size for CBR measurement. |
| ***sl-TimeWindowSizeCR***Indicates the time window size for CR evaluation. |
| ***sl-TxPercentageList***Indicates the portion of candidate single-slot PSSCH resources over the toal resources. Value p20 corresponds to 20%, and so on. |
| ***sl-X-Overhead***Accounts for overhead from CSI-RS, PT-RS. If the field is absent, the UE applies value xOh0 (see TS 38.214 [19], clause 5.1.3.2). |

| *SL-SyncAllowed* field descriptions |
| --- |
| ***gnbEnb-Sync***If configured, the (pre-) configured resources can be used if the UE is directly or indirectly synchronized to eNB or gNB (i.e., synchronized to a reference UE which is directly synchronized to eNB or gNB). |
| ***gnss-Sync***If configured, the (pre-) configured resources can be used if the UE is directly or indirectly synchronized to GNSS (i.e., synchronized to a reference UE which is directly synchronized to GNSS). |
| ***ue-Sync***If configured, the (pre-) configured resources can be used if the UE is synchronized to a reference UE which is not synchronized to eNB, gNB and GNSS directly or indirectly. |

| *SL-PSCCH* field descriptions |
| --- |
| ***sl-FreqResourcePSCCH***Indicates the number of PRBs for PSCCH in a resource pool where it is not greater than the number PRBs of the subchannel. |
| ***sl-DMRS-ScrambleID***Indicates the initialization value for PSCCH DMRS scrambling. |
| ***sl-NumReservedBits***Indicates the number of reserved bits in first stage SCI. |
| ***sl-TimeResourcePSCCH***Indicates the number of sumbols of PSCCH in a resource pool. |

| *SL-PSSCH* field descriptions |
| --- |
| ***sl-BetaOffsets2ndSCI***Indicates candidates of beta-offset values to determine the number of coded modulation symbols for second stage SCI. The value indicates the index of Table 9.3-2 of TS 38.213 |
| ***sl-PSSCH-DMRS-TimePatternList***Indicates the set of PSSCH DMRS time domain patterns in terms of PSSCH DMRS symbols in a slot that can be used in the resource pool. |
| ***sl-Scaling***Indicates a scaling factor to limit the number of resource elements assigned to the second stage SCI on PSSCH. Value *f0p5* corresponds to 0.5, value *f0p65* corresponds to 0.65, and so on. |

| *SL-PSFCH* field descriptions |
| --- |
| ***sl-PSFCH-CandidateResourceType***Indicates the number of PSFCH resources available for multiplexing HARQ-ACK information in a PSFCH transmission (see TS 38.213 clause 16.3) |
| ***sl-PSFCH-Period***Indicates the period of PSFCH resource in the unit of slots within this resource pool. If set to *sl0*, no resource for PSFCH, and HARQ feedback for all transmissions in the resource pool is disabled. |
| ***sl-PSFCH-RB-Set***Indicates the set of PRBs that are actually used for PSFCH transmission and reception..The leftmost bit of the bitmap refers to the lowest RB index in the resource pool, and so on |

| *SL-UE-SelectedConfigRP* field descriptions |
| --- |
| ***sl-MaxNumPerReserve***Indicates the maximum number of reserved PSCCH/PSSCH resources that can be indicated by an SCI. |
| ***sl-MultiReserveResource***Indicates if it is allowed to reserve a sidelink resource for an initial transmission of a TB by an SCI associated with a different TB, based on sensing and resource selection procedure. |
| ***sl-ResourceReservePeriodList***Set of possible resource reservation period allowed in the resource pool in the unit of ms. Up to 16 values can be configured per resource pool. |
| ***sl-RS-ForSensing***Indicates whether DMRS of PSCCH or PSSCH is used for L1 RSRP measurement in the sensing operation. |
| ***sl-SensingWindow***Parameter that indicates the start of the sensing window. |
| ***sl-SelectionWindowList***Parameter that determines the end of the selection window in the resource selection for a TB with respect to priority indicated in SCI. Value n1 corresponds to 1\*2µ, value n5 corresponds to 5\*2µ, and so on, where µ = 0,1,2,3 for SCS 15,30,60,120 kHz respectively. |
| ***sl-ThresPSSCH-RSRP-List***Indicates a list of 64 thresholds, and the threshold should be selected based on the priority in the decoded SCI and the priority in the SCI to be transmitted. A resource is excluded if it is indicated or reserved by a decoded SCI and PSSCH RSRP in the associated data resource is above a threshold. |

| *SL-PowerControl* field descriptions |
| --- |
| ***sl-MaxTransPower***Indicates the maximum value of the UE's sidelink transmission power on this resource pool. The unit is dBm. |
| ***sl-Alpha-PSSCH-PSCCH***Indicates alpha value for sidelink pathloss based power control for PSCCH/PSSCH when sl-P0-PSSCH is configured. When the field is absent the UE applies the value 1.  |
| ***sl-P0-PSSCH-PSCCH***Indicates P0 value for sidelink pathloss based power control for PSCCH/PSSCH. If not configured, sidelink pathloss based power control is disabled for PSCCH/PSSCH. |
| ***dl-Alpha-PSSCH-PSCCH***Indicates alpha value for downlink pathloss based power control for PSCCH/PSSCH when dl-P0-PSSCH is configured. When the field is absent the UE applies the value 1.  |
| ***dl-P0-PSSCH-PSCCH***Indicates P0 value for downlink pathloss based power control for PSCCH/PSSCH. If not configured, downlink pathloss based power control is disabled for PSCCH/PSSCH. |
| ***dl-Alpha-PSFCH***Indicates alpha value for downlink pathloss based power control for PSFCH when dl-P0-PSFCH is configured. When the field is absent the UE applies the value 1.  |
| ***dl-P0-PSFCH***Indicates P0 value for downlink pathloss based power control for PSFCH. If not configured, downlink pathloss based power control is disabled for PSFCH. |

| *SL-MinMaxMCS-Config* field descriptions |
| --- |
| ***sl-MaxMCS-PSSCH***Indicates the maximum MCS value used for Mode 1 configured and dynamic grants when using the associated MCS table. If no MCS is configured, UE autonomously selects MCS from the full range of values. |
| ***sl-MinMCS-PSSCH***Indicates the minimum MCS value for Mode 1 configured and dynamic grants when using the associated MCS table. If no MCS is configured, UE autonomously selects MCS from the full range of values. |

|  |
| --- |
| END OF CHANGE |