**3GPP TSG-RAN WG4 Meeting # 95-e R4-2008591**

**Electronic Meeting, 25 May – 5 June, 2020**

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| *CR-Form-v12.0* |
| **CHANGE REQUEST** |
|  |
|  | **38.133** | **CR** | 684 | **Rev** | **1** | **Current version:** | **16.3.0** |  |
|  |
| *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 |  | Core Network |  |

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| --- |
|  |
| ***Title:***  | CR of Annex.B for NR V2X side conditions |
|  |  |
| ***Source to WG:*** | LG Electronics |
| ***Source to TSG:*** | RAN4 |
|  |  |
| ***Work item code:*** | 5G\_V2X\_NRSL-Perf |  | ***Date:*** | 2020-05-14 |
|  |  |  |  |  |
| ***Category:*** | B |  | ***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:*** | Introduce condtions for NR V2X in B.4 |
|  |  |
| ***Summary of change:*** | Resubmission of endorsed Draft CR R4-2005314Additional changes from R4-2005314 are,* Remove square bracket from Es/Iot in Table B.4.4-1.
* Remove square bracket from B.4.4 title
* In Table B.4.4-1,
	+ PSCCH-RSRP[/PSSCH-RSRP] 🡪 PSCCH-RSRP and/or PSSCH-RSRP
	+ PSCCH/[/PSSCH] 🡪 PSCCH and/or PSSCH
 |
|  |  |
| ***Consequences if not approved:*** | Miss condtions for NR V2X |
|  |  |
| ***Clauses affected:*** | B.4 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  |  |
| ***affected:*** | **X** |  |  Test specifications | TS 38.533 |
| ***(show related CRs)*** |  | **X** |  O&M Specifications |  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

< START OF CHANGE #1 >

# B.4 Conditions for V2X

## B.4.1 Test parameters for GNSS signals

This clause defines the reference signal power levels of generated salellites for a corresponding GNSS, which will be used in V2X test cases.

Table B.4.1-1: GNSS Referenece Signal Power Parameters

| System | Parameters | Unit | Value |
| --- | --- | --- | --- |
|  | Number of generated satellites per system | - | 6 |
| GPS(1) | Reference signal power level for all satellites | dBm | -128.5 |
| Galileo | Reference signal power level for all satellites | dBm | -127 |
| GLONASS | Reference signal power level for all satellites | dBm | -131 |
| BDS | Reference signal power level for all satellites | dBm | -133 |
| NOTE 1: "GPS" here means GPS L1 C/A, Modernized GPS, or both, dependent on UE capabilities.NOTE 2: The DUT UE does not need to support all systems. The DUT UE shall support at least one system and will be test for the supported systems. |

## B.4.2 Conditions for PSBCH-RSRP Accuracy Requirements

This clause defines the following conditions for PSBCH-RSRP measurement accuracy requirements applicable for a corresponding operating band.

The conditions are defined in Table B.4.2-1 for FR1.

Table B.4.2-1: Conditions for PSBCH-RSRP measurements in FR1

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | NR V2X operating band groups Note1 | Minimum S-SSB\_RP | S-SSB Ês/Iot |
| dBm/SCSS-SSB | dB |
| SCSS-SSB = 15kHz | SCSS-SSB = 30kHz | SCSS-SSB = 60kHz |
| [NR\_TDD\_FR1\_A] | [-127] | [-124] | [-121] | ≥ -6 |
| [NR\_TDD\_FR1\_I] | [-123] | [-120] | [-117] |
| NOTE 1: NR V2X operating band groups are as defined in Section 3.5 for the corresponding NR operating bands. |

## B.4.3 Conditions for Selection/Reselection to Intra-frequency SyncRef UE

This clause defines the S-SSB\_RP and S-SSB Ês/Iot applicable for a corresponding operating band.

The conditions for selection/reselection to intra-frequency SyncRef UE are defined in Table B.4.3-1 for FR1.

Table B.4.3-1: V2X synchronization measurements in FR1

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | NR V2X operating band groups Note1 | Minimum S-SSB\_RP | S-SSB Ês/Iot |
| dBm/SCSS-SSB | dB |
| SCSS-SSB = 15kHz | SCSS-SSB = 30kHz | SCSS-SSB = 60kHz |
| [NR\_TDD\_FR1\_A] | [-121] | [-118] | [-115] | ≥ 0 |
| [NR\_TDD\_FR1\_I] | [-117] | [-114] | [-111] | ≥ 0 |
| NOTE 1: NR V2X operating band groups are as defined in Section 3.5 for the corresponding NR operating bands. |

## B.4.4 Conditions for L1 SL-RSRP Accuracy Requirements

This clause defines the following condtions for L1 SL-RSRP measurement accuracy requirements applicable for a corresponding operating band.

The conditions are defined in Table B.4.4-1 for FR1.

Table B.4.4-1: Conditions for L1 SL-RSRP measurements in FR1

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter | NR V2X operating band groups Note1 | Minimum L1 SL-RSRP | Ês/Iot |
| dBm/SCS | dB |
| SCS= 15kHz | SCS= 30kHz | SCS = 60kHz |
| [NR\_TDD\_FR1\_A] | [-121] | [-118] | [-115] | ≥ 0 |
| [NR\_TDD\_FR1\_I] | [-117] | [-114] | [-111] |
| NOTE 1: NR V2X operating band groups are as defined in Section 3.5 for the corresponding NR operating bands.NOTE 2: The parameter Ês/Iot is the Ês/Iot of PSCCH-DMRS and/or PSSCH-DMRS.NOTE 3: The SCS is for PSCCH and/or PSSCH |

< END OF CHANGE #1 >