**3GPP TSG-RAN WG1 Meeting #118 R1-24xxxxx**

**Maastricht, Netherlands, August 19th – 23rd, 2024**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **Draft CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.213** | **CR** |  | **rev** |  | **Current version:** | **18.3.0** |  |
|  | | | | | | | | |
| *For* [***HELP***](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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Corrections to TS 38.213 on OLPC for SL PRS | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Moderator (Intel Corporation), [vivo, ZTE Corporation, Sanechips] | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos\_enh2-Core | | | | |  | ***Date:*** | | | 2024-08-20 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Clause 16.2.3A:   * Based on Rel-18 agreement, SL pathloss-based OLPC for SL PRS should share the same principle as PSSCH power control. That is, SL pathloss based OLPC can only be used in unicast and if a higher layer filtered RSRP is reported to the UE transmitting the SL PRS from the UE intended to receive the SL PRS. | | | | | | | | |
|  | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Clause 16.2.3A:   * Add condition for SL pathloss-based OLPC for SL PRS, ie., if a SCI format scheduling the SL PRS transmission includes a cast type indicator field indicating unicast, and if a is reported to the UE transmitting the SL PRS from the UE intended to receive the SL PRS.” | | | | | | | | |
| ***Consequences if not approved:*** | | Description of SL pathloss-based OLPC for SL PRS is incomplete. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 16.2.3A | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### 16.2.3A SL PRS

A UE determines a power for a SL PRS transmission on a resource pool in SL PRS transmission occasion on active SL BWP of carrier as:

where,

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

- is determined by

- if the resource pool is a shared SL PRS resource pool, a value of *sl-MaxTxPower* based on a priority level and a CBR range for a CBR measured in slot , where is the congestion control processing time [6, TS 38.214]; if *sl-MaxTxPower* is not provided, . The priority level is same for PSSCH and SL PRS

- if the resource pool is a dedicated SL PRS resource pool, a value of *sl-PRS-MaxTx-Power* based on a priority level and a CBR range for a CBR measured in slot , where is the congestion control processing time [6, TS 38.214]; if *sl-PRS-MaxTx-Power* is not provided, . The priority level is for SL PRS

- if a value for is provided

- [dBm]

- else

- [dBm]

where

- if the resource pool is a shared SL PRS resource pool, is a value of *dl-P0-PSSCH-PSCCH* or *dl-P0-PSSCH-PSCCH-r17*; else, if the resource pool is a dedicated SL PRS resource pool, is a value of *dl-P0-SL-PRS*

- if the resource pool is a shared SL PRS resource pool, is a value of *dl-Alpha-PSSCH-PSCCH*, if provided, and if *dl-Alpha-PSSCH-PSCCH* is not provided; else, if the resource pool is a dedicated SL PRS resource pool, is provided by *dl-Alpha-SL-PRS*, if provided, and if *dl-Alpha-SL-PRS* is not provided

- when the active SL BWP is on a serving cell , 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 in serving cell when the UE is configured to monitor PDCCH for detection of DCI format 0\_0 in serving cell

- 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 in serving cell

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

- if a value for is provided, if a SCI format scheduling the SL PRS transmission includes a cast type indicator field indicating unicast, and if a is reported to the UE transmitting the SL PRS from the UE intended to receive the SL PRS

- [dBm]

- else

- [dBm]

where

- if the resource pool is a shared SL PRS resource pool, is a value of *sl-P0-PSSCH-PSCCH* or *sl-P0-PSSCH-PSCCH-r17*; else, if the resource pool is dedicated for SL PRS transmissions, is a value of *sl-P0-SL-PRS*

- if the resource pool is a shared SL PRS resource pool, is a value of *sl-Alpha-PSSCH-PSCCH*, if provided and if *sl-Alpha-PSSCH-PSCCH* is not provided; else, if the resource pool is a dedicated SL PRS resource pool, is provided by *sl-Alpha-SL-PRS* if provided, and if *sl-Alpha-SL-PRS* is not provided

*-* , where

- is obtained

- if the resource pool is a shared SL PRS resource pool, from a PSSCH transmit power per RE summed over the antenna ports of the UE and higher layer filtered across PSSCH transmission occasions using a filter configuration provided by *sl-FilterCoefficient*,

- else, if the resource pool is a dedicated SL PRS resource pool, from a SL PRS transmit power per RE and higher layer filtered across SL PRS transmission occasions using a filter configuration provided by *sl-FilterCoefficient*

- is a RSRP, as defined in [7, TS 38.215], that is reported to the UE from a UE receiving the SL PRS transmission and is obtained

- if the resource pool is a shared SL PRS resource pool, from a PSSCH DM-RS using a filter configuration provided by *sl-FilterCoefficient*

- else, if the resource pool is a dedicated SL PRS resource pool, from a SL PRS using a filter configuration provided by *sl-FilterCoefficient*

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

**<Unchanged text omitted>**