**3GPP TSG-RAN WG1 Meeting #110bis-e *draft R1-22NNNN***

**e-Meeting, October 10 – 19, 2022**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.2* | | | | | | | | |
| **[DRAFT] CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **TS 38.214** | **CR** |  | **rev** | **-** | **Current version:** | **17.3.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Correction to the Rx beam reporting condition for DL-AoD | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Moderator(Ericsson), Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | RAN1 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_pos\_enh-Core | | | | |  | ***Date:*** | | | 2022-10-14 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-17 |
|  | *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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | RSRPP measurement using the same Rx beam as standalone RSRPP-based DL-AoD is deemed supported from specifications and it is also confirmed by RAN1/RAN2 with the exception of the mandatory reporting of the first RSRP. Such a case should be considered when determine the condition for reporting the Rx beam index. The current condition of Rx beam index reporting that is only applicable to RSRP is too restrictive. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add at least two RSRPP measurements associated with the same Rx beam as another condition to report the Rx beam index.  Remove the square brackets for the higher layer parameter name with respect to the differential RSRP/RSRPP reporting. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Rx beam index reporting is not supported for RSRPP-based DL-AoD. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.1.6.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | | UE is required to implement this CR for RSRPP reporting for DL-AoD. No change to the RAN/core network is required. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

#### 5.1.6.5 PRS reception procedure

========================= Unchanged parts =========================

The UE may be configured to measure and report, subject to UE capability, up to 24 DL PRS-RSRP measurements on DL PRS resources associated with the same *dl-PRS-ID*. When the UE reports DL PRS-RSRP measurements from one DL PRS resource set, the UE may indicate which DL PRS-RSRP measurements associated with the same higher layer parameter *nr-DL-PRS-RxBeamIndex* [17, TS 37.355] have been performed using the same spatial domain filter for reception if for each *nr-DL-PRS-RxBeamIndex* reported there are at least 2 DL PRS-RSRP measurements associated with it within the DL PRS resource set. When the UE reports DL PRS-RSRP measurements for a DL PRS resource, the reported multiple DL PRS-RSRP measurements associated with the same or different higher layer parameter *nr-DL-PRS-RxBeamIndex* may have the same or different timestamps.

The UE may be configured to measure and optionally report, subject to UE capability, up to 24 DL PRS RSRPP for the first detected path on DL PRS resources associated with the same *dl-PRS-ID*. When the UE reports DL PRS-RSRPP measurements from one DL PRS resource set, the UE may indicate which DL PRS-RSRPP measurements associated with the same higher layer parameter *nr-DL-PRS-RxBeamIndex* [17, TS 37.355] have been performed using the same spatial domain filter for reception if for each *nr-DL-PRS-RxBeamIndex* reported there are at least 2 DL PRS-RSRPP measurements associated with it within the DL PRS resource set.

The UE may be configured to optionally report a differential DL RSRPP for a PRS resource with reference to *nr-DL-PRS-FirstPathRSRP-Result*and/or a differential DL PRS RSRP with reference to *nr-DL-PRS-RSRP-Result* via higher layer parameter *NR-DL-AoD-AdditionalMeasurementElement*.

========================= Unchanged parts =========================