**3GPP TSG-RAN WG1 Meeting #110R1-2207943**

**Toulouse, France, August 22nd –26th, 2022**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
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|  | **38.214** | **CR** | 0292 | **rev** | **-** | **Current version:** | **17.2.0** |  |
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| *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 | **x** | Core Network |  |

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| ***Title:***  | Draft CR on RSTD measurement for 38.214  |
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| ***Source to WG:*** | Moderator(CATT), ZTE, vivo |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | NR\_pos\_enh-Core |  | ***Date:*** |  |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | 7 |
|  | *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-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | (1) According to the agreement made in RAN1#107e meeting, the maximum number of reported RSTD measurements obtained from different DL PRS resources per UE Rx TEG per target TRP is 4. Also in RAN1#109e meeting, up to 32 measurement instances are supported in a single measurement report. In summary, if measurement instance and TEG are supported, the maximum number of reported RSTD measurements obtained from different DL PRS resources per UE Rx TEG per target TRP **in a single measurement instance** is 4. The maximum number of reported RSTD measurements obtained from different DL PRS resources per UE Rx TEG per target TRP **in a single measurement report** can be up to 4\*32.There are two paragraphs describing the maximum number of reported RSTD measurements in the current TS 38.214. The motivation was for Rel-16 and Rel-17 respectively. However, the description of the first paragraph is unclear whether it is also applicable for the case of multiple measurement instances in a single report. Hence, we suggest to explicitly indicate that the maximum number is applicable for a single measurement instance in order to make it clear that the location information/elements included in one measurement instance for Rel-17 is equivalent/similar to that included in one measurement report for Rel-16. Agreement in RAN1#107-e:* The maximum number of **reported RSTD measurements** obtained from different DL PRS resources per UE Rx TEG per target TRP is 4.
	+ The target TRP can be the same as the RSTD reference TRP or a neighbor TRP
	+ Note: The number of DL PRS resources per target TRP in a measurement report is still limited to 4 as in Rel-16.
* The maximum number of reported RTOA measurements obtained from different UL SRS resources for positioning per TRP Rx TEG for a UE is 4.
* The maximum number of reported UE Rx-Tx time difference measurements obtained from different DL PRS resources per UE Rx TEG for a TRP is 4.
* The maximum number of reported gNB Rx-Tx time difference measurements obtained from different UL SRS resources per TRP Rx TEG for a UE is 4.
* The maximum number of reported UE Rx-Tx time difference measurements obtained from different DL PRS resources per UE RxTx TEG for a TRP is 4.
* The maximum number of reported gNB Rx-Tx time difference measurements obtained from different UL SRS resources per TRP RxTx TEG for a UE is 4.
* Signaling details are left to RAN2 and RAN3

Agreement in RAN1#109-e:* Support up to 32 measurement instances in a single measurement report.
* Inform RAN2/RAN3 on RAN1’s decision
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| ***Summary of change:*** | 1. The maximum number of reported RSTD measurements is defined per measurement instance.
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| ***Consequences if not approved:*** | The specification is not aligned with the agreements and may cause confusions, and the usage of measurement instance is not fully captured. |
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| ***Clauses affected:*** | 5.1.6.5 |
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|  | **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 ...  |
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| ***Other comments:*** | **Isolated impact analysis:**This is to correct the specification to align the previous agreement. No isolated impact is expected. |
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| ***This CR's revision history:*** |  |

#### 5.1.6.5 PRS reception procedure

<Unrelated part omitted>

The UE may be configured to measure and report, subject to UE capability, up to 4 DL RSTD measurements per pair of *dl-PRS-ID* with each measurement between a different pair of DL PRS resources or DL PRS resource sets within the DL PRS configured for those *dl-PRS-ID*. If the UE is not configured to report with *multiMeasInSameReport-r17*, t~~T~~he up to 4 measurements being performed on the same pair of *dl-PRS-ID* and all DL RSTD measurements in the same report use a single reference timing. If the UE is configured to report with *multiMeasInSameReport-r17*, the up to 4 measurements being performed on the same pair of *dl-PRS-ID* and all DL RSTD measurements in the same measurement instance of the same report use a single reference timing.

 <Unrelated part omitted>