**3GPP TSG- RAN4 Meeting #113R4-241x**

**Orlando, US, 18th – 22nd November, 2024**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.133** | **CR** | **5132** | **rev** | **1** | **Current version:** | **18.7.0** |  |
|  | | | | | | | | |
| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

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| ***Title:*** | CR on AoA setup for multi-Rx | | | | | | | | | |
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| ***Source to WG:*** | vivo | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_FR2\_multiRX\_DL-Perf | | | | |  | ***Date:*** | | | 2024-11-7 |
|  |  | | | |  | |  | | |  |
| ***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)* | |
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| ***Reason for change:*** | | There are backets in the AoA setup for multi-Rx, which means the AoA setup is not finalized yet.  The tests for multi-Rx are to test scheduling restriciton/measurement restrication relaxation, shorter measurement delay due to fast beam sweeping and dual DCI states switching delay. There is no need to change AoA pair in each test iteration.  During this meeting, following agreements were made.   * In AoA setup 5, the angular separation between the directions (AoA1 and AoA2) of the 2 active probes shall not be changed for each test iteration. * In AoA setup 6, the angular offset between the directions of the AoA pair (AoA2, AoA3) shall not be changed for each test iteration. | | | | | | | | |
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| ***Summary of change:*** | | * Removed brackets in the AoA setup for multi-Rx. * Editorial corrections. | | | | | | | | |
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| ***Consequences if not approved:*** | | AoA setup for multi-Rx WI are not completed. | | | | | | | | |
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| ***Clauses affected:*** | | A.3.15.5, A.3.15.6 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | | **X** |  | Test specifications | | | | TS 38.533 | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
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| ***This CR's revision history:*** | |  | | | | | | | | |

# <Start of Change #1>

### A.3.15.5 Setup 5: 2 AoAs for simultaneous reception with QCL Type-D

There are 2 active probes in the test. The DL signals, and noise if applicable, are transmitted from the two active probes. The 2 AoAs (AoA1 and AoA2) for simultaneous reception with different QCL-typeD are from the set of AoA pairs, denoted by (AoA1, AoA2) that can support 2 AoA reception for UE declared AoA angular separation and declared orientation in the positioner of the test system according to the spherical coverage requirement for simultaneous reception from multiple directions as defined in clause 7.3K.3 of TS 38.101-2 for UE power class 3 supporting simultaneous reception from multiple directions. The angular separation between the directions (AoA1 and AoA2) of the 2 active probes is declared from Table 7.3K.3-1 in clause 7.3K.3 of TS 38.101-2 [19] and shall not be changed for each test iteration.

AoA1 needs to satisfy the spherical coverage requirement in Table 7.3.4.3-1 of TS 38.101-2.

Editor’s note: The chosen AoA pair (AoA1, AoA2) is up to RAN5.

### A.3.15.6 Setup 6: 3 AoAs for simultaneous reception with different QCL Type-D

There are 3 active probes in the test and the DL signals and noise are transmitted from the three active probes.

Out of the three AoAs, one AoA (AoA1) is aligned to a direction which is from the set of directions corresponding to the EIS spherical coverage percentile of the DUT as defined in clause 7.3.4 of TS 38.101-2 [19] for UE power class 3 and other 2 AoAs (AoA2 and AoA3) are from the set of AoA pairs, denoted by (AoA2, AoA3) that can support 2 AoA reception for UE declared AoA angular separation and declared orientation in the positioner of the test system according to the spherical coverage requirement for simultaneous reception from multiple directions as defined in clause 7.3K.3 of TS 38.101-2 for power class 3 supporting simultaneous reception from multiple directions.

The angular offset between the directions of the AoA pair (AoA2, AoA3) is declared from Table 7.3K.3-1 in clause 7.3K.3 of TS 38.101-2 and shall not be changed for each test iteration.

Editor’s note: The chosen AoA pair (AoA2, AoA3) is up to RAN5.

# <End of Change #1>