**3GPP TSG-RAN4 Meeting #** **111R4-2408559**

Fukuoka City, Fukuoka , Japan, 20th – 24th May, 2024

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.133** | **CR** | **Draft** | **rev** | **-** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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:*** | DraftCR on RRM requirements maintenance for R18 FR2 multi-Rx | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_FR2\_multiRX\_DL-Core | | | | |  | ***Date:*** | | | 2024-05-01 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | Regarding the MRTD requirements introduced in R18 Multi-Rx, now it is stated that only apply to UE support [FG 30-1 or 30-2]. However, it should be the generic requirements for UE supporting simultaneous reception from different QCL typeD, not only for measurement/scheduling restriction relaxation and beam sweeping factor reduction. | | | | | | | | |
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| ***Summary of change:*** | | Clarify that the newly introduced MRTD requirements apply to UE support simultaneous reception from different QCL typeD. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The requirements are not correct. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 7.6.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **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:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

# <Start of Change #1>

### 7.6.8 Minimum Requirements for Multi-TRPs

A UE supporting [*FG 40-2-1 or FG 40-2-2*] shall be capable of handling at least a relative receive timing difference between slot timing of different TRPs on the same carrier at the UE receiver as shown in Table 7.6.8-1 below, if the UE does not indicate support of [*FG 40-2-6*].

A UE supporting [*FG 40-2-1 or FG 40-2-2*] shall be capable of handling at least a relative receive timing difference between slot timing of different TRPs on the same carrier at the UE receiver as shown in Table 7.6.8-2 below, provided that the UE indicates that it is capable of [*FG 40-2-6*].

Table 7.6.8-1: Maximum receive timing difference requirement for multi-TRPs with two TAs for UE not capable of [*FG 40-2-6*]

|  |  |
| --- | --- |
| Frequency Range | Maximum receive timing difference |
| FR1 | CP lengthnote 1 |
| FR2-1 | CP lengthnote 1 |
| Note 1: CP length of the maximum SCS on the carrier. | |

Table 7.6.8-2: Maximum receive timing difference requirement for multi-TRPs with two TAs for UE capable of [*FG 40-2-6*]

|  |  |
| --- | --- |
| Frequency Range of the pair of carriers | Maximum receive timing difference (µs) |
| FR1 | 33 |
| FR2-1 | 8 |

A UE supporting simultaneous reception with different QCL typeD shall be capable of handling at least a relative receive timing difference between slot timing of different TCI states on the same carrier at the UE receiver as shown in Table 7.6.8-3.

Table 7.6.8-3: Maximum receive timing difference requirement for UE supporting simultaneous reception with different QCL typeD

|  |  |
| --- | --- |
| Frequency Range | Maximum receive timing difference |
| FR2-1 | CP lengthnote 1 |
| Note 1: CP length dependency on SCS is FFS | |

# <End of Change #1>