**3GPP TSG-RAN WG4 Meeting # 104-e *R4-2213797***

**Electronic Meeting, Aug 15th – 26th, 2022**

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| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.101-4** | **CR** | **-** | **rev** | **1** | **Current version:** | **17.5.0**  |  |
|  |
| *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:***  |  for RedCap 1Rx |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon |
| ***Source to TSG:*** | R4 |
|  |  |
| ***Work item code:*** | NR\_redcap-Perf |  | ***Date:*** | 2022-08-03  |
|  |  |  |  |  |
| ***Category:*** | **B** |  | ***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 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-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | Based on the work plan R4-2210931, RAN4 should submit the draft CR for RedCap for review. |
|  |  |
| ***Summary of change:*** | Introduced the static propgation condition for RedCap |
|  |  |
| ***Consequences if not approved:*** | The performance requirements will still be incomplete |
|  |  |
| ***Clauses affected:*** | B.1.0 (New) |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **x** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** | **x** |  |  Test specifications | TS 38.521-4 |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

<The first Changes>

# B.1 Static propagation condition

## B.1.0 UE Receiver with 1Rx

For 2 port transmission the channel matrix is defined in the frequency domain by

..

For 4 port transmission the channel matrix is defined in the frequency domain by

**H** = [1 1 j j]

For 8 port transmission the channel matrix is defined in the frequency domain by

**H** = [1 1 1 1 j j j j]

## B.1.1 UE Receiver with 2Rx

For 1 port transmission the channel matrix is defined in the frequency domain by

 .

For 2 port transmission the channel matrix is defined in the frequency domain by

 .

For 4 port transmission the channel matrix is defined in the frequency domain by



For 8 port transmission the channel matrix is defined in the frequency domain by



## B.1.2 UE Receiver with 4Rx

For 1 port transmission the channel matrix is defined in the frequency domain by

 .

For 2 port transmission the channel matrix is defined in the frequency domain by

 .

For 4 port transmission the channel matrix is defined in the frequency domain by

 .

For 8 port transmission the channel matrix is defined in the frequency domain by



<The end of Changes>