**3GPP TSG-RAN WG1 Meeting #117 *R1-240xxxx***

**Fukuoka City, Fukuoka, Japan, May 20th-24th, 2024**

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| *CR-Form-v12.3* |
| **CHANGE REQUEST** |
|  |
|  | **38.214** | **CR** | **---** | **rev** | **---** | **Current version:** | **18.2.0** |  |
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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:***  | Correction on Rel-18 Type II Doppler codebook based CSI enhancement |
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| ***Source to WG:*** | Moderator (Samsung), Xiaomi |
| ***Source to TSG:*** | --- |
|  |  |
| ***Work item code:*** | NR\_MIMO\_evo\_DL\_UL-Core |  | ***Date:*** | 2024-05-20 |
|  |  |  |  |  |
| ***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 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-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19) Rel-20 (Release 20)* |
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| ***Reason for change:*** | In current specification, the value of $w$ used for relaxing aperodic CSI reporting time for Rel-18 Type II codebook is not given. In addition, it is not clear how to obtain the value of $w$. According to agreement on the UE feature achieved in RAN1#116-bis meeting, the value of $w$ is equal to either 14\*(*KP*–1)\**d* or 14\**KP*\**d* symbols, where the value of *KP* ∈ {1,2,4} is indicated by UE capability, and *d* = 4 is the minimum periodicity of periodic or semi-persistent CSI-RS resource. The value of $w$ is reported by UE capability indication. Such agreement should be captured in current specification for clarification. |
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| ***Summary of change:*** | Clarify the value of $w$ and how to obtain $w$ in section 5.4. |
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| ***Consequences if not approved:*** | It is not unclear what is the value of $w$ and how to obtain $w$. |
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| ***Clauses affected:*** | 5.4 |
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|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **N** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **N** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **N** |  O&M Specifications | TS/TR ... CR ...  |
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| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

5.4 UE CSI computation time

-------------------------------------------Unchanged parts are omitted-------------------------------------------

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- $(Z\_{2},Z\_{2}^{'})$ or $(Z\_{2}+Z\_{2}^{'},2Z\_{2}^{'})$, according to UE reported capability, with $(Z\_{2},Z\_{2}^{'})$ of table 5.4-2, if *codebookType* is set to 'typeII-CJT-r18' or 'typeII-CJT-PortSelection-r18' and the corresponding *NZP-CSI-RS-ResourceSet* for channel measurement is configured with $1<N\_{TRP}\leq 4$ resources, or

- $(Z\_{2}+14\left(K-1\right)m,Z\_{2}^{'})$, with $(Z\_{2},Z\_{2}^{'})$ of table 5.4-2, if the CSI report is configured with $N\_{4}=1$, *codebookType* is set to ‘typeII-Doppler-r18’ or ‘typeII-Doppler-PortSelection-r18’ and the corresponding *NZP-CSI-RS-ResourceSet* for channel measurement is aperiodic with $K$ CSI-RS resources, or

- $(Z\_{2}+w,Z\_{2}^{'})$, with $(Z\_{2},Z\_{2}^{'})$ of table 5.4-2, where $w$=56.(*KP* –1) or 56.*KP* symbols, according to the reported UE capability, where the value of 𝐾𝑃 ∈{1,2,4} is indicated by UE capability, if the CSI report is configured with $N\_{4}=1$ , *codebookType* is set to ‘typeII-Doppler-r18’ or ‘typeII-Doppler-PortSelection-r18’ and the corresponding *NZP-CSI-RS-ResourceSet* for channel measurement is periodic or semi-persistent with a single CSI-RS resource, or

- $(Z\_{2}+14\left(K-1\right)m,Z\_{2}^{'})$ or $(Z\_{2}+14\left(K-1\right)m+Z\_{2}^{'},2Z\_{2}^{'})$, according to UE reported capability, with $(Z\_{2},Z\_{2}^{'})$ of table 5.4-2, if the CSI report is configured with $N\_{4}>1$, *codebookType* is set to ‘typeII-Doppler-r18’ and the corresponding *NZP-CSI-RS-ResourceSet* for channel measurement is aperiodic with $K$ CSI-RS resources, or

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-------------------------------------------Unchanged parts are omitted-------------------------------------------