**3GPP TSG-RAN WG2 Meeting #117-e *R2-2203162***

**Electronic, February 21 – March 03, 2022**

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **36.306** | **CR** | **1827** | **rev** | **3** | **Current version:** | **16.7.0** |  |
|  | | | | | | | | |
| *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 | **X** | Core Network |  |

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| ***Title:*** | Addition of NR-U RSSI/CO measurement UE capability | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Apple, xiaomi, vivo, Lenovo, Motorola Mobility, Ericsson, Qualcomm Incorporated | | | | | | | | | |
| ***Source to TSG:*** | RAN2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI17, NR\_unlic-Core | | | | |  | ***Date:*** | | | 2022-02-21 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | F |  | | | | | ***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 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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | NR-U RSSI/CO measurement UE capability is only carried in UE-CapabilityRAT-ContainerList, which is not required for eNB to decode. However, in TS36.331, NR-U RSSI measurement configuration is enabled. The problem then is eNB cannot make such configuration to UE without knowing UE capability.  It was agreed in RAN2 #113 meeting to introduce a new UE capability in TEI17 on this matter. | | | | | | | | |
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| ***Summary of change:*** | | To add the per band inter-RAT NR-U RSSI/CO measurement UE capability. | | | | | | | | |
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| ***Consequences if not approved:*** | | eNB cannot configure UE with NR-U RSSI/CO measurement without knowing the corresponding UE capability.  **Impact analysis:**  Impacted 5G architecture options: LTE only, EN-DC  Impacted functionality: NR-U  Inter-operability:  If NW implements this CR and UE does not, UE would not report the NR-U RSSI/CO measurement UE capability to eNB. There is no inter-operability issue.  If UE implements this CR and NW does not, NW would not know the UE capability on NR-U RSSI/CO measurement and may blindly configure UE with NR-U RSSI/CO measurement. If UE does not support it, UE would declare reconfiguration failure. | | | | | | | | |
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| ***Clauses affected:*** | | 4.3.6 | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS/TR 36.331 CR 4729 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### 4.3.6 Measurement parameters

<Text omitted>

--------------------------------------------------------------------------<Start of change>----------------------------------------------------------------------

4.3.6.XX *nr-RSSI-ChannelOccupancyReporting-r17*

This field indicates whether the UE supports performing measurements and reporting of RSSI and channel occupancy on the corresponding NR band. If both *sharedSpectrumMeasNR-EN-DC-r17* and *sharedSpectrumMeasNR-SA-r17* are included, the UE shall set the value of *nr-RSSI-ChannelOccupancyReporting-r17* consistently for the same NR band.

--------------------------------------------------------------------------<End of change>-------------------------------------------------------------------------