**3GPP TSG-RAN WG4 Meeting #111R4-24xxxxx**

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

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| *CR-Form-v12.1* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.101-5** | **CR** | **0085** | **rev** | **1** | **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:*** | (TEI) CR to 38.101-5 Flexible TX-RX Separation for NR NTN Bands from Rel-18 [TEI\_NTN] | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Inmarsat, Viasat, Omnispace, Terrestar Solutions, Thuraya, Ligado Networks, EchoStar, Thales, Skyworks | | | | | | | | | |
| ***Source to TSG:*** | R4 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI18 | | | | |  | ***Date:*** | | | 2024-05-08 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **A** |  | | | | | ***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-15 (Release 15) Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Currently NR NTN Bands n256, n255 are specified with fixed TX-RX separation based on initial Rel-17 work. However, this is already supported in other NR NTN bands specified later, such as n254.  This aspect was overlooked during the initial n256 and n255 specifications due to limited alignment with satellite deployments, which typically do not use fixed separation for MSS bands, and thus resulted in a misalignment in the expected operation of the system.  The correction must be implemented before the systems are deployed and devices reach the market. | | | | | | | | |
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| ***Summary of change:*** | | Clarify support of flexbile TX-RX separation for bands n256 and n255 | | | | | | | | |
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| ***Consequences if not approved:*** | | Lack of flexible allocation of TX and RX frequency pairing will pose unnecessary challenges to network deployments. | | | | | | | | |
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| ***Clauses affected:*** | | 5.4.4 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | |  | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

### << START OF CHANGE >>

### 5.4.4 TX–RX frequency separation

The default TX channel (carrier centre frequency) to RX channel (carrier centre frequency) separation for operating bands is specified in Table 5.4.4-1.

Table 5.4.4-1: UE TX-RX frequency separation

| NTN Satellite Operating Band | TX – RX  carrier centre frequency separation |
| --- | --- |
| n256 | 165 – 215 MHz |
| n255 | [-72.5] MHz – -130.5 MHz |
| n254 | 862 – 885 MHz |

### << END OF CHANGE >>