**3GPP TSG-RAN4 Meeting #111 *R4-2408415***

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

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **38.863** | **CR** | **0016** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *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 |  | Radio Access Network |  | Core Network |  |

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|  | | | | | | | | | | |
| ***Title:*** | CR on TR38.863 Summary of coeixstence results in above 10GHz | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Samsung | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_NTN\_enh-Core | | | | |  | ***Date:*** | | | 2024-05-13 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***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:*** | | The simulation results of co-existence studies in above 10GHz for Rel-18 NTN enhancement have been agreed and relative summary has been made. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | To introcude summary of co-existence studies in above 10GHz for Rel-18 NTN. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | Summary of coexistence studies in above 10GHz for Rel-18 NTN enhancement will be missing. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 6a.5 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

<Start of Change 1>

6a.5 Summary of co-existence study

### 6a.5.1 Coexistence at 17/27GHz

This sub-clause captures the summary of the co-existence studies. The averaged interpolate ACIR values for each scenario are presented in Table 6a.5.1-1 below.

Table 6a.5.1-1 Average ACIR values for each scenario at 17/27GHz

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Scenario | | 1a | 2a | 3a | 4a | 5a | 6a | 7a | 8a |
| ACIR value [dB] | GEO | 10.5 | 1.54 | 0 | 14.3 | - | 0 | 0 | 2.2 |
| LEO1200 | 13.15 | 0.82 | 0 | 16.2 | - | 0 | ~~0~~ | 2.5 |

Then, by considering the following ACLR and ACS of TN BS and UE in Table 6a.5.1-2, the suggested ACLR and ACS of NTN SAN and VSAT from each scenario are given in Table 6a.5.1-3. It should be noted that the values in Table 6a.5.1-3 are directly derived from the selected option of each scenario, and it is limited by the nature of assumptions and methodologies adopted in the co-existence studies.

Table 6a.5.1-2: ACLR and ACS of FR2 TN

|  |  |  |
| --- | --- | --- |
| TN | | Values |
| BS | ACLR | 28 dB |
| ACS | 23.5 dB |
| UE | ACLR | 17 dB |
| ACS | 23 dB |

Table 6a.5.1-3: Co-existence results suggested ACLR and ACS of NR-NTN at 17/27GHz

|  |  |  |
| --- | --- | --- |
| Scenario | Contributing | ACLR ACS values |
| 1a | NTN VSAT ACLR | GEO:11 dBc  LEO: 14 dBc |
| 2a | SAN ACS | GEO: 2 dBc  LEO: 1 dBc |
| 3a | NTN VSAT ACLR | 0 |
| 4a | SAN ACS | GEO: 14 dBc  LEO: 16 dBc |
| 5a | NTN VSAT ACS | - |
| 6a | SAN ACLR | 0 |
| 7a | SAN ACLR | 0 |
| 8a | NTN VSAT ACS | GEO: 2 dBc  LEO: 3 dBc |

With the above suggested values, recognizing the charactersitics of SAN and VSAT to the state of art and their future developments, the agreed ACLR and ACS of NR-NTN at 17/27GHz are given in Table 6a.5.1-4.

Table 6a.5.1-4: ACLR and ACS of NR-NTN at 17/27GHz

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | SAN | | VSAT | |
| GEO | LEO | Fixed | Mobile |
| ACLR (dBc) | 12 | 12 | 14 | 14 |
| ACS (dBc) | 18 | 24 | 251, 2, 3 | 251, 2, 3 |
| NOTE 1: At the time of this 3GPP co-existence study, there is no TN band defined or planned near 17 GHz. The parameters are derived based on 3GPP coexistence scenarios in which a TN system is simulated to be operating in the band directly adjacent to the proposed NTN system as well as technical assumptions that may or may not be applicable in practice. The results of the study are not intended to address coexistence issues from a regulatory standpoint.  NOTE 2:   There are existing non-3GPP VSAT UE operating in Ka band and will likely continue operating in the future, with a much lower ACS value as per the ETSI EN 303 978 specification, which specifies a minimum ACS requirement value of 7dB.  NOTE 3:    Additional solutions could be further considered to address coexistence issues if and when TN is deployed in 17 GHz. | | | | |

<End of Change 1>