3GPP TSG RAN WG1 #118 R1-2407405

Maastricht, NL, August 19th – 23rd, 2024

**Title: Draft LS on FR2-NTN inclusion to specifications**

**Response to:**

**Release:** Release 18

**Work Item:** NR\_NTN\_enh-Core

**Source:** [RAN1], vivo

**To:** RAN2, RAN4

**Cc:**

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**Attachments:** **R1-2407407**

# Overall description

RAN1 has initiated work on potential RAN1 specification changes to support NR NTN for the frequency bands defined as part of FR2-NTN, and has endorsed several CRs to include FR2-NTN. During this work, RAN1 identified that some RAN1 specifications are still unclear regarding whether FR2-1 or FR2-2 procedure should apply to the FR2-NTN, as the current RAN1 specifications define different behaviour between FR2-1 and FR2-2. Assuming that FR2 NTN should follow the same behaviour as FR2-1, CR R1-2407407 has been agreed.

Additionally, RAN1 has noticed that some RRC parameters (e.g., *subcarrierSpacing* in *BWP*) and UE capabilities (e.g., *channelBWs-DL*, *configuredUL-GrantType1-v1650*), which are expected to be applicable to NTN, may have the similar issues, i.e., only reference the FR1 and FR2-1 bands, or TDD-FR1 bands, TDD-FR2-1 bands and TDD-FR2-2 in the RAN2 specification.

Furthermore, RAN1 understands that NOTE 2 in Table 5.1-1 of 38.101-5 states that FR2-NTN are regarded as FR2 bands, likely to minimize the impact when referencing RAN1 and RAN2 specifications. NOTE 2 may also need to be updated to consider the distinction between FR2 and FR2-1.

Table 5.1-1: Definition of NTN frequency ranges

|  |  |
| --- | --- |
| Frequency range designation | Corresponding frequency range |
| FR1-NTN1 | 410 MHz – 7125 MHz |
| FR2-NTN2 | 17300 MHz – 30000 MHz |
| NOTE 1: [NTN bands within this frequency range are regarded as a FR1 band when references from other specifications.]  NOTE 2: [NTN bands within this frequency range are regarded as a FR2 band when references from other specifications.] | |

# Actions

**To RAN WG2 and RAN WG4:**

**ACTION:** RAN1 respectfully asks RAN2 and RAN4 to take above information into account for their future work and to consider whether any update to the related specifications is needed.

# Dates of Next TSG-RAN WG1

TSG RAN WG1 Meeting #118-bis 14th – 18th October, 2024 Hefei, China

TSG RAN WG1 Meeting #119 18th – 22nd November, 2024 Orlando, USA