**3GPP TSG-RAN WG4 Meeting # 111 R4-2408927**

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

**Agenda item:** 8.2.4

**Source:** Moderator (Inmarsat)

**Title:** Topic summary for [110][116] IoT\_NTN\_extLband

**Document for:** Information

# Introduction

*This discussion aims at defining the specification parameters for the introduction of MSS Extended L-band for IoT NTN.*

*No open issues have been identified by companies on IoT\_NTN\_extLband Performance Part.*

# Topic #1: Maintenance to TR 36.764 on LTE IoT NTN operating bands

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [**R4-2407316**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2407316.zip)**(Formal CR)** | MediaTek Inc. | **Title:** (IoT\_NTN\_extLband) CR to 36.764 for IoT-NTN UE RF requirements (Rel-18)**This is a CR (Cat. F) for TS36.764 v18.1.0 in Rel-18****Reason:** Reference tables need to be correctly referred. Secondly, reference sensitivity for UE category NB1 and NB2 needs to be added. Finally, the ambiguous content of band B253 (Extended L-band) needs to be modified.1) Tables 5.3A-1, 5.4A.2-1, 6.5A.4.2-2, 7.3A-1 and 7.3A-3 are referred to TS 36.1022) In clause 7 FDD band B253 (Extended L-band), requirements of B256 and B255 are removed. 3) Reference sensitivity for UE category NB1 and NB2 is added.4) Correct typo in clause 7.2.1**Proposals:** * Remove square brackets on band number in Table 7.2.1.1-2
* Add explicit references to TS 36.102 [4] in Table 7.2.1.2.1-1
* Remove NOTE 3 from Table 7.2.1.2.1-1
* Correct reference number and band number from “n253” to “B253” in Sections 7.2.1.3, 7.2.1.4, 7.2.1.5, 7.2.1.6
* Correct reference numbers to TS 36.101 in Table 7.2.2.1-1, Table 7.2.2.1-2
* Remove lines on Bands 255 and 256 and add explicit reference to TS 36.102 to Table 7.2.2.1-3
* Add missing Table 7.2.2.1-4: Reference sensitivity for UE category NB1 and NB2
* Add explicit references to TS 36.102 and correct reference number to TS 36.101 in Table 7.2.2.2.1-1
* Remove bands 255, 256 from Table 7.2.2.2.1-2
* Add explicit reference to TS 36.102 and correct reference numbers to TS 36.101 in Table 7.2.2.2.2-1
* Remove items related to bands 255 and 256 from Table 7.2.2.2.2-2
* Add explicit references to TS 36.102 and correct reference number to TS 36.101 in Table 7.2.2.2.3-1
* Remove items related to bands 255 and 256 from Table 7.2.2.2.4-1
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| [**R4-2409660**](https://www.3gpp.org/ftp/TSG_RAN/WG4_Radio/TSGR4_111/Docs/R4-2409660.zip)**(Formal CR)** | Inmarsat | **Title:** CR to TR 36.764 - Extended L-band Clause 7.3 Evaluation and Simulation**This is a CR (Cat. F) for TS36.764 v18.1.0 in Rel-18****Reason:** Introduction of missing Clause 7.3 Evaluation and Simulation for Extended L-band (B253) to TR 36.764. This CR is mostly informational.**Proposals:** Introduce a missing clause 7.3 on Evaluation and Simulation in Section 7 on Band 253, providing background reference measurements to address the discrepancies between the 3GPP NB-IoT SEM and the ETSI EN 301 681 SEM and the performance of devices against the requirements, confirming no need for A-MPR. |

## Open issues summary

### Sub-topic 1-1 - CRs and TPs

**Issue 1-1-1: (IoT\_NTN\_extLband) CR to 36.764 for IoT-NTN UE RF requirements (Rel-18)**

**Proposals:**

* Remove square brackets on band number in Table 7.2.1.1-2
* Add explicit references to TS 36.102 [4] in Table 7.2.1.2.1-1
* Remove NOTE 3 from Table 7.2.1.2.1-1
* Correct reference number and band number from “n253” to “B253” in Sections 7.2.1.3, 7.2.1.4, 7.2.1.5, 7.2.1.6
* Correct reference numbers to TS 36.101 in Table 7.2.2.1-1, Table 7.2.2.1-2
* Remove lines on Bands 255 and 256 and add explicit reference to TS 36.102 to Table 7.2.2.1-3
* Add missing Table 7.2.2.1-4: Reference sensitivity for UE category NB1 and NB2
* Add explicit references to TS 36.102 and correct reference number to TS 36.101 in Table 7.2.2.2.1-1
* Remove bands 255, 256 from Table 7.2.2.2.1-2
* Add explicit reference to TS 36.102 and correct reference numbers to TS 36.101 in Table 7.2.2.2.2-1
* Remove items related to bands 255 and 256 from Table 7.2.2.2.2-2
* Add explicit references to TS 36.102 and correct reference number to TS 36.101 in Table 7.2.2.2.3-1
* Remove items related to bands 255 and 256 from Table 7.2.2.2.4-1

**Way Forward:**

* Agree to the CR

**Issue 1-1-2: CR to TR 36.764 - Extended L-band Clause 7.3 Evaluation and Simulation**

**Proposals:**

* Introduce a missing clause 7.3 on Evaluation and Simulation in Section 7 on Band 253, providing background evaluation to address the discrepancies between the 3GPP NB-IoT SEM and the ETSI EN 301 681 SEM and reference measurements to confirm the performance of devices against the requirements practically negates the need for MPR or A-MPR.

**Way Forward:**

* Agree to the CR