**3GPP TSG-RAN WG4 Meeting #110bis R4-2405995**

**Changsha, China, April 15 – April 19, 2024**

**Title:** Way Forward for [110bis][305] NR\_NTN\_enh\_Part1 Doppler pre-compensation into the guard band

**Agenda Item:** 6.16.9

**Source: Huawei, Thales**

**Document for:** Approval

# Introduction

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In the RAN4#110 meeting, although the draft big CR [1] was endorsed in RAN4#110 meeting, Doppler pre-compensation issues were not extensively discussed for FR2-NTN UE. In RAN4#110-bis, Issue 1-2-1 from R4-2405825 has been identified **that Edge RB allocated to Ka band NTN UE may fall into Guard band due to UE Doppler pre-compensation.**

**Proposal 1:** RAN4 can further discuss.

**Proposal 2:** RAN4 to consider this potential problem as implementation issue/add a note in TS 38.101-5 that the issue is taken into account by network operator.

# Way forward

Further discuss if extra guard-band is required/should be specified when VSAT UE is pre-compensating Doppler.

# Reference

[1] R4-2401116, Big CR on TS38.101-5 for UE RF Requirements, Samsung Electronics France SA

[2] R4-2405340, Doppler shift issues for guard band and transmission bandwidth configuration, Huawei, HiSilicon

[3] R5-233672, LS on clarifications for Non-Terrestrial Networks, RAN5#99, May. 2023