**3GPP TSG-RAN WG4 Meeting #96-e R4-2012617**

Online, 17 Aug. - 28 Aug. 2020

**Source:** Nokia, Nokia Shanghai Bell

**Title:** TP to TR 38.809: IAB-MT Pcmax and power control

**Agenda Item:** 7.4.2.1.1

**Document for:** Approval

# Introduction

This document provides the text proposal on IAB Pcmax definition and power control to be included in TR 38.809 [1]:

# References

1. 3GPP TR 38.809. “Background for Integrated access and backhaul radio transmission and reception (Release 16)”.

# TP to TR 38.809

<Start of text proposal>

# 7 Conducted transmitter characteristics

## 7.2 IAB output power

Detailed structure of the subclause is TBD.

## 7.3 Output power dynamics

Detailed structure of the subclause is TBD.

## 7.3.X Power control

The power control requirements are not defined to the wide area IAB-MT, as the tolerances for power control are large compared to the minimum requirement for dynamic range.

For the local area IAB-MT, the absolute power tolerance was not defined as the dynamic range defined for the local area IAB-MT is not large enough compared to the tolerance value from UE requirement.

The relative and aggregate power tolerance requirements are taken into use with the requirement values to be modified compared to the UE specification.

<Unchanged sections omitted>

# 9 Radiated transmitter characteristics

## 9.2 Radiated transmit power

For configured maximum power it was discussed how the UE requirement is adapted to fit the characteristic of IAB-MT. The factors like MPR/A-MPR are included in the UE requirements, but they are not specified for the IAB-MT. Therefore, they do not need to be defined for the IAB-MT PCMAX. Similarly, as IAB-MT Tx power is declared by the manufacturer using same framework as BS Tx power declaration, hence power class related factors PPowerClass and ΔPPowerClass are not included in PCMAX definition. Other factors like PEMAX,c, and the factors related to Interband CA, SUL, and SRS are not included in the PCMAX definition.

The PCMAX requirement was agreed to be aligned with the output power declaration, which includes also the declared back off power. Using TRP or EIRP was discussed, and EIRP was agreed to be used, as it is defined for all IAB-MT types and the relevant metric for link budget.

Radiated transmit power is the EIRP level for a declared beam at a specified beam peak direction. For each declared beam, the manufacturer declared EIRP level needs to be achieved within a specified accuracy.

<End of text proposal>