**3GPP TSG-RAN WG4 Meeting #94-e [DRAFT] R4-2002495**

Online, 24 Feb - 06 Mar 2020

**Source:** Huawei

**Title:** [IAB] WF on IAB-MT Tx power requirements

**Agenda Item:** 8.5.1

**Document for:** Approval

# WF on IAB-MT Tx power requirements

There are 5 sub-topics discussed under IAB\_MT TX power subject, following the 1st round discussion [1] the following agreements and ways forward are proposed:

## 1.1 Sub-topic 2-1, IAB-MT Tx power definition

**Agreement**: IAB-MT Tx power is declared by manufacturer sing same framework as BS Tx power declaration

## 1.2 Sub-topic 2-2, Tx Power Dynamic range definition

The proposed options are:

* + Option 1: Introduce dynamic range requirement linked to ACLR
	+ Option 2: Introduce different dynamic range requirement depending on the MT class
	+ Option 3: introduce fixed value of dynamic range (e.g. 5dB as proposed by Ericsson)

There has been very little convergence on the options, based on comments~:

* + Option 1: Samsung,
	+ Option 2: ZTE, CATT, Qualcomm
	+ Option 3: Ericsson, Huawei

Nokia did not express a clear favourite but notes this is linked to dynamic range requirement.

The moderator suggests the following tentative agreement:

Agree to have different dynamic range for the two MT classes (if it is agreed to have at least two classes). Continue the discussion on how to define the dynamic range requirements.

Option 1 has been proposed and supported by Samsung, The idea is covered somehow in co-existence study WF on IAB-MT ACLR and minimum TX power. And this option can be merged into option 2.

As there is a link to the dynamic range requirements which are being discussed in the coexistence thread #81 propose keeping all options open until the dynamic range is decided, or possibly merging this issue with the dynamic range issue.

**WF (for agreement)**

 Based on the dynamic range discussion select from the following options:

* + Option 2: Introduce different dynamic range requirement depending on the MT class
	+ ~~Option 3: introduce fixed value of dynamic range~~

## 1.3 Sub-topic 2-3, IAB-MT Power Control requirements

**WF (for agreement):** defer discussion until after the dynamic range is concluded.

## 1.4 Sub-topic 2-4, IAB-MT Tx off power

**Agreement:** Agree proposal to re-use the BS off power requirement for the IAB-MT

## 1.5 Sub-topic 2-5, IAB MT On-off transient period(time mask)

Candidate options:

 Option 1: Re-use the BS time mask

 Option 2: Re-use the UE time mask

The 2 options are very similar:

* General mask profile is the same for BS and UE
	+ UE has a number of additional masks with different loads but transient between ON power and OFF power is the same
* FR1 timing values are the same (10us)
* FR2 BS is 3us, UE is 5us

**Agreements:**

* General profiles are the same so either can be used
* UE specific profiles if needed for IAB-MT are used.
* 10us used for ON/OFF time for FR1
* For FR2 ON/OFF time is to be discussed further and is one of the 2 options:
	+ 5us
	+ 3us

# 3. References

[1] R4-2002373, Email discussion summary for RAN4#94e\_#83\_NR\_IAB\_RF\_Tx