**3GPP TSG-RAN4 Meeting #98-e *draft* R4-21xxxxx**

**Online, , 25th Jan 2020 – 5th Feb 2021**

**Source:** Huawei, CBN

**Title:** [DRAFT] Reply LS on technical feasibilities for frequency arrangements for IMT in 470 – 703 MHz band, cover

**Agenda Item:** 12.4.5

**Document for:** Discussion and agreement

# Introduction

During RAN#90e meeting, LS from APT (Asia-Pacific Telecommunity) Wireless Group (AWG) was received in RP-202143 and related new SID on 600MHz range for AWG was approved in RP-202924.

Referring to the AWG LS to 3GPP RAN and RAN4 in RP-202143, AWG-26 meeting agreed to undertake the study to revise the APT/AWG/REP-79 (PT Report on Frequency Arrangements for IMT in the Band 470-698 MHz”, Sep. 2017) to develop frequency arrangements in the band 470-703 MHz for APT Members that wish to implement both the APT700 and a 600 MHz frequency arrangements that is optimal for APT Members. In the LS, AWG asked 3GPP to provide feedback on the technical feasibility of B1 and B2 options, before the 27th APT Wireless Group (AWG-27) meeting, scheduled 22-30 March 2021.

In order to provide timely feedback to AWG, RAN4 shall reply with the requested feedback during this meeting.

In this contribution we provide draft reply LS to the APT Wireless Group LS in RP-202934, based on the discussion on technical feasibilities for frequency arrangements for IMT in 470 – 703 MHz band. It is proposed to consider this draft LS as a placeholder for the RAN4 feedback to AWG, on B1/B2 technical feasibilities.

# Conclusions

Based on the motivation above, it is proposed to consider this draft LS as a placeholder for the AWG reply. Feedback from other companies shall be considered:

**Proposal 1**: send reply LS to AWG, based on the attached Draft Reply LS proposal on the B1/B2 frequency arrangement feasibility aspects.

# Draft Reply LS

Based on the discussion above, the text proposal below is proposed for approval.

*------------------------------ Draft LS ------------------------------*

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Title: [DRAFT] Reply LS on technical feasibilities for frequency arrangements for IMT in 470 – 703 MHz band

Response to: LS (APT\_LS200918, RP-202934, R4-2016598) on Frequency arrangements for IMT in the band 470-703MHz from APT Wireless Group

Release: Rel-17

Work Item: FS\_NR\_600MHz\_ext

Source: 3GPP RAN WG4

To: Asia-Pacific Telecommunity Wireless Group (AWG)

Cc: 3GPP TSG RAN

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**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

Attachments: -

**1. Overall Description:**

RAN WG4 would like to thank for the LS in RP-202934 / R4-2016598.

In response to a request from APT Wireless Group on 3GPP RAN WG4 feedback on technical feasibility of B1 and B2 options for the potential frequency arrangements in 470 – 703 MHz band, 3GPP RAN WG4 would like to share the following feedback:

* Based on the analysis of the pre-defined options B1 and B2, option B1 is considered to be less favourable due to multiple co-existence scenarios. Conclusions on those potential co-existence issues are not possible to be derived by the next AWG-27 meeting (22-30 March 2021). Despite of that, the identified co-existence scenarios in option B1 are expected to tighten the requirements on the required filtering capabilities, which would further influence the cost-effectiveness of the products.
* Among the pre-defined duplexer variants for option B2, the one with the widest channel bandwidth is considered to be the most cost-efficient as it is considered to be the most flexible solution in terms of the bandwidth flexibility allocations.

Even though all the duplexer variants listed in option B2 are considered to be technically feasible as a single duplexer solution, further investigation is needed to evaluate internal implementation aspects of the duplex architecture considering two duplexers. This analysis is considered to require more time (at least till 2021 Q2).

**2. Actions:**

**To APT Wireless Group:**

**ACTION:** RAN WG4 asks AWG to take the above information into account.

**3. Date of Next RAN WG4 Meetings:**

RAN WG4 Meeting #98-bis-e 12th – 20th April 2021 Online meeting

RAN WG4 Meeting #99-e 19th – 27th May 2021 Online meeting

*------------------------------ End of Draft LS------------------------------*