**3GPP TSG RAN WG1 Meeting #104-e R1-210xxxx**

**e-Meeting, January 25 – February 05, 2021**

**Title: [Draft] LS on beam switching gap for 60 GHz band**

**Response to:**

**Release:** Rel-17

**Work Item:** NR\_ext\_to\_71GHz

**Source:** Intel Corporation [RAN1]

**To:** RAN4

**Cc:**

**Contact Person:**

#### Name: Daewon Lee

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**Attachments:**

**1. Overall Description:**

RAN1 would like to ask RAN4 on time required for gNBs and UEs operating in 52.6 GHz to 71 GHz to perform the following operations:

* Switching Tx beams
* Switching Rx beams
* Switching from DL to UL
* Switching from UL to DL

In RAN1’s understanding, switching Tx/Rx beams was assumed to be in the order of 100ns, which could be absorbed by the CP with subcarrier spacing supported for Rel-15/16 NR operating in FR2. RAN1 would like to ask RAN4 on whether similar assumption could be made for frequencies between 52.6 ~ 71 GHz and if not, what is the expected time required for Tx and Rx beam switching operations for both gNB and UEs.

Additionally, in RAN1’s understanding, switching from DL-to-UL or UL-to-DL may require up to 13792 Tc (=7.015 µsec) for Rel-15/16 NR operating in FR2. RAN1 would like to ask RAN4 on whether similar assumption could be made for frequencies between 52.6 ~ 71 GHz and if not, what is the expected time required for DL-to-UL and UL-to-DL switching operations for both gNB and UEs.

RAN1 would like to kindly ask RAN4 to provide information on the above questions.

**2. Actions:**

**To RAN4:** RAN1 would like to kindly ask RAN4 to provide information on the above questions.

**3. Date of Next TSG-RAN WG1 Meetings:**

TSG-RAN WG1 Meeting #104-bis-e 12 – 20 Apr 2021 Online

TSG-RAN WG1 Meeting #105-e 19 – 27 May 2021 Online