**3GPP TSG-RAN WG1 Meeting #104bis-eR1-21xxxxx**

**e-Meeting, 12th – 20th April 2021**

**Title:** [Draft] LS on RF switching time for RedCap UE

**Response to:**

**Release:** Rel-17

**Work Item:** Support of reduced capability NR devices (NR\_redcap)

**Source:** Ericsson [to be RAN1]

**To:** RAN4

**Cc:**

**Contact person:** Johan Bergman, johan (dot) bergman (at) ericsson (dot) com

**Send any reply LS to:** 3GPP Liaisons Coordinator, <mailto:3GPPLiaison@etsi.org>

**Attachments:**

# 1 Overall description

RAN1 has discussed the RedCap WI objective on “Reduced maximum UE bandwidth” and would like to ask RAN4 whether it would be feasible to maintain the same RF switching times for RedCap UEs as currently specified for non-RedCap UEs or even reduce the RF switching times for RedCap UEs under the following assumptions with manageable impacts (to e.g. device cost, power consumption, and specifications):

* The RF switching takes place between two frequency locations with different centre frequencies.
* The maximum UE RF bandwidth is 20 MHz for FR1 and 100 MHz for FR2, and the frequency change is up to 80 MHz for FR1 and up to 300 MHz for FR2.
* The RF bandwidth, SCS, QCL, and RRC configuration can be assumed to be the same before and after the RF switching, i.e. it is only the centre frequency that changes.
* The RF switching may take place during initial access or after initial access.

# 2 Actions

**To RAN4:**

**ACTION:** RAN1 respectfully asks RAN4 to provide feedback on the question above on RF switching time.

# 3 Dates of next TSG-RAN WG1 meetings

TSG-RAN WG1 Meeting #105-e 10th – 27th May 2021 Electronic Meeting

TSG-RAN WG1 Meeting #106-e 16th – 27th August 2021 Electronic Meeting