**3GPP TSG RAN WG2#115-e Draft R2-2109130**

**e-Meeting, 9th - 27th August, 2021**

**Title: Draft**  LS to RAN1 on L2 buffer size reduction

**Reply to:**

**Release:** Rel-17

**Work Item:** NR\_redcap-Core

**Source:** Intel, Spreadtrum [to be RAN WG2]

**To:** RAN WG1

**Cc:**

**Contact Person:**

**Name:** Yi Guo

**Email Address:** yi.guo@intel.com

**Name:** Lifeng Han

**Email Address:** Lifeng.Han@unisoc.com

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

**Attachments:** None

**1. Overall Description:**

RAN2 discussed several options for L2 buffer size reduction for Rel-17 RedCap in RAN2#114 and RAN2#115 (see R2-2108891) but did not reach any conclusion. Those options are the following:

|  |
| --- |
|  |

* + ***Option 1****:”Introduce a new scaling factor, which may take values of 0.25x, 0.5x, 0.75x, 1.0x and is applied to the total L2 buffer size specified in subclause 4.1.4 in TS 38.306.*
	+ ***Option 2.1:*** *The scaling factor for peak DL rates specified in subclause 4.1.2 in TS 38.306, which currently may take values of {0.4, 0.75, 0.8, 1}, is reused for RedCap UEs but with the removal/relaxation of the constraint on the minimum value for single carrier NR SA operation.*
	+ ***Option 2.2****: The scaling factor for peak DL rates specified in subclause 4.1.2 in TS 38.306, which currently may take values of {0.4, 0.75, 0.8, 1}, is extended to include new smaller values of {0.1, 0.2} for RedCap UEs, with the removal/relaxation of the constraint on the minimum value of the product* $v\_{Layers}^{(j)}⋅Q\_{m}^{\left(j\right)}⋅f\_{}^{\left(j\right)}$*as applicable for single carrier NR SA operation.*
	+ ***Option 3:*** *no change, i.e. keep L2 buffer size definition and equations in TS 38.306.*
	+ ***Option 4:*** *Up to RAN1.*

As some of these options are related to RAN1, RAN2 respectfully request RAN1 to evaluate them from RAN1 perspective and provide feedback/recommendation to RAN2.

**2. Actions:**

**To RAN1 group**

**ACTION:** RAN2 respectfully request RAN1 to discuss L2 buffer size reduction and provide feedback on the above options for L2 buffer size reduction from RAN1 perspective.

**3. Date of Next TSG-RAN2 Meetings:**

TSG-RAN2 Meeting #116-e 1-12 November 2021 Electronic Meeting

TSG-RAN2 Meeting #117-e 17-26 January 2022 Electronic Meeting