**3GPP TSG RAN WG1 Meeting #110 R1-22xxxxx**

**Toulouse, France, 22nd – 26th August 2022**

**Title:** [Draft] Reply LS on introduction of an offset to transmit CD-SSB and NCD-SSB at different times

**Response to:** [R1-2205734](https://www.3gpp.org/ftp/TSG_RAN/WG1_RL1/TSGR1_110/Docs/R1-2205734.zip) / [R2-2206267](https://www.3gpp.org/ftp/tsg_ran/WG2_RL2/TSGR2_118-e/Docs/R2-2206267.zip)

**Release:** Rel-17

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

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

**To:** RAN2

**Cc:** RAN4

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

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

**Attachments:** None

# 1 Overall description

RAN1 would like to thank RAN2 for the LS where RAN2 asked the following question:

|  |  |
| --- | --- |
| RAN2 would like to thank RAN1 and RAN4 for their reply LS on introduction of an offset to transmit CD-SSB and NCD-SSB at different times. RAN2 agreed to specify the offset with the following value range {sf5, sf10, sf15, spare5, spare4, spare3, spare2, spare1} and the definition below:   |  | | --- | | ***ssb-TimeOffset***  The time offset between CD-SSB of the serving cell and this Non-Cell Defining SSB. Value sf5 means the first burst of Non-Cell Defining SSB is transmitted 5ms later than the first burst of CD-SSB transmitted after the first symbol of SFN=0 of the serving cell, value sf10 means the first burst of Non-Cell Defining SSB is transmitted 10ms later than the first burst of CD-SSB transmitted after the first symbol in SFN=0 of the serving cell, and so on. If the field is absent, RedCap UE considers that the time offset between the first burst of CD-SSB transmitted in the serving cell and the first burst of this Non-Cell Defining SSB transmitted is zero. |   RAN2 would like to ask RAN1 and RAN4 to take the above into consideration and provide feedback on the values, i.e., confirm and/or indicate whether additional values are needed. |

RAN1 has discussed the question in the LS and would like to provide the following answer:

RAN1 understands RAN4 has defined 20 and 40 ms periodicity, and RAN1 thinks that the NCD-SSB time offset values {sf5, sf10, sf15} are sufficient from RAN1 perspective, and {sf20, sf40} are also feasible.

# 2 Actions

**To RAN2:**

**ACTION:** RAN1 respectfully requests RAN2 to take the above into account in their future work.

# 3 Dates of next TSG-RAN WG1 meetings

TSG-RAN WG1 Meeting #110-bis-e 10th – 19th October 2022 Online

TSG-RAN WG1 Meeting #111 14th – 18th November 2022 Canada