**3GPP TSG RAN WG1 #120 R1- 250xxxx**

**Athens, Greece, February 17th – 21st, 2025**

**Title:** [Draft] Reply LS on co-existence of SL-CA and SL PRS transmission/reception in Dedicated SL-PRS resource pool

**Response to:** R1-2500014(R2-2411251)

**Release:** Rel-18

**Work Item:** NR\_pos\_enh2-Core

**Source:** RAN WG1

**To:** RAN2

**Cc:**

**Contact person:**

**Name:** Yuanyuan Wang

**E-mail Address:** yuanyuan.wang.txyj@vivo.com

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

**Attachments:** None

1. **Overall description**

RAN1 thanks RAN2 for the LS on co-existence of SL-CA and SL PRS transmission/reception in dedicated SL PRS resource pool.

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| RAN2 notices RAN1 has discussed on co-existence of SL-CA and SL PRS transmission/reception and come to the following agreements.

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| Working assumption@RAN1#116 meetingIn NR Rel-18, in a band (pre)configured with SL CA, SL PRS transmission /reception can be supported:* In a shared SL PRS resource pool in a single SL carrier.
	+ Tx power control follows the rule defined for SL CA in NR Rel-18
* In a dedicated SL PRS resource pool in a single SL carrier when the slots (pre)configured for the dedicated SL PRS resource pool do not collide with the slots (pre)configured for any other resource pool or S-SSB resource(s) in other carriers.
* FFS: new UE capability(ies) are defined for this combination of features

Note: whether this combination of features is supported in Rel-18 requires a conclusion on whether to introduce new UE capability(ies). No specification work until the FFS is resolved.Agreement@RAN1#116bis meetingFor a band configured with SL CA, confirm the related working assumption from RAN1 #116 with the introduction of the following new UE capabilities:* + One UE capability for SL PRS transmission for a band configured with SL CA
	+ One UE capability for SL PRS reception for a band configured with SL CA
	+ Note: there will not be two separate FG components for shared RP and dedicated RP
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Regarding the restriction of SL-PRS transmission/reception in a dedicated SL-PRS resource pool in a band (pre-)configured with SL CA as highlighted above, RAN2 discussed potential specification impact but has not reached a consensus. The following understandings are potential directions to capture:* **Understanding 1**: NW restriction to guarantee that Dedicated SL-PRS resource pool is not configured in the slots colliding with slots (pre-)configured for any other resource pool(s) or S-SSB resource(s) of other SL carriers.
* **Understanding 2**: UE behaviour to select a dedicated SL-PRS resource pool for SL-PRS transmission/reception, which is configured in the slot that does not collide with any slot (pre-)configured for any other resource pool(s) or S-SSB resource(s) in other SL carriers.
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And RAN2 asks RAN1 to feedback on which understanding fits the original intention of the agreement.

RAN1 would like to reply to RAN2 that **Understanding 1** is RAN1 intention

* **Understanding 1**: NW restriction to guarantee that Dedicated SL-PRS resource pool is not configured in the slots colliding with slots (pre-)configured for any other resource pool(s) or S-SSB resource(s) of other SL carriers.
1. **Actions**

**To RAN2**

**ACTION:** RAN1 respectfully asks RAN2 to take the above response into consideration.

1. **Date of next TSG-RAN WG1 meetings**

TSG RAN WG1 Meeting #120-bis 7- 11 April, 2025 China

TSG RAN WG1 Meeting #121 19- 23 May, 2025 Malta, EU