**3GPP TSG RAN WG1 #108-e R1-220xxxx**

**e-Meeting, February 21 – March 3, 2022**

**Title: [DRAFT]** Draft LS on the dropping rule of DL signals/channels for capability 1B and 2

**Response to:**

**Release:** Rel-17

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

**Source:** Moderator (Huawei)

**To:** RAN4

**Cc:**

**Contact Person:**

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

**Attachments:**

**1. Overall Description:**

RAN1 discussed the impacted cells for capability 1B and capability 2 during RAN1#107-e and RAN1#108-e, and reached the following agreement.

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| **Agreement**For capability 1A as per working assumption made in RAN1#106-e, the DL signalings/channels in a per UE fashion (i.e. both across NR & LTE) inside the PRS processing window are dropped if the DL PRS is determined to be higher priority.For capability 1B as per working assumption made in RAN1#106-e, only the DL signalings/channels from a certain band inside the PRS processing window are dropped if the DL PRS is determined to be higher priority.

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| Working assumption:Subject to UE capability, support PRS measurement outside the MG, within a PRS processing window, and UE measurement inside the active DL BWP with PRS having the same numerology as the active DL BWP.* Inside the PRS processing window, subject to the UE determining that DL PRS to be higher priority, support the following UE capabilities:
	+ Capability 1: PRS prioritization over all other DL signals/channels in all symbols inside the window.
		- Cap. 1A: The DL signals/channels from all DL CCs (per UE) are affected.
		- Cap. 1B: Only the DL signals/channels from a certain band/CC are affected.
			* FFS: band or CC
	+ Capability 2: PRS prioritization over other DL signals/channels only in the PRS symbols inside the window
	+ A UE shall be able to declare a PRS processing capability outside MG.
		- FFS: Details of capability signalling (e.g., per UE or per band, etc.)
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**Agreement**For capability 2 as per working assumption made in RAN1#106-e * For FR1, only the DL signals/channels from a certain CC inside the PRS processing window, which overlap with DL PRS symbols in time, are dropped if the DL PRS is determined to be higher priority
* For FR2, only the DL signals/channels from a certain band inside the PRS processing window, which overlap with DL PRS symbols in time, are dropped if the DL PRS is determined to be higher priority

For the DL signals/channels from a different FR2 band than the FR2 band of the DL PRS for capability 1B and 2, subject to dropping due to the same Rx beam across multiple FR2 bands if the DL PRS is determined to be higher priority, it is up to RAN4 to define.* Send an LS to RAN4
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RAN1 respectfully requests RAN4 to define the dropping rule of the DL signals/channels from a different FR2 band than the FR2 band of the DL PRS for capability 1B and 2 due to the same Rx beam across multiple FR2 bands if the DL PRS is determined to be higher priority.

**2. Actions:**

**To RAN4**

**ACTION:** RAN1 respectfully requests RAN4 to take above information into account and define the corresponding dropping rule.

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

TSG-RAN WG1 Meeting #109-e 16 May – 27 May 2022 E-Meeting

TSG-RAN WG1 Meeting #110 22 Aug – 26 Aug 2022 Toulouse, France