**3GPP TSG-RAN2#119e Meeting *R2-22xxxxx***

**Electronic, 17th– 26th August, 2022**

**Title: (draft) LS on DL-PRS measurements with reduced samples capability**

**Response to: -**

**Release:** Rel-17

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

**Source:** ZTE Corporation [to be RAN2]

**To:** RAN WG1, RAN WG4

**CC:**

**Contact Person:**

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**Attachment:**

**1. Overall Description:**

RAN2 observes that the UE capability of reduced samples of DL-PRS measurement has different granularities in different RRC states according to the RAN1 and RAN4 UE features list. To be specific, the RAN1’s UE feature 27-3-1: M-sample measurements in RRC\_CONNECTED is a per band capability:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 27-3-1 | M-sample measurements in RRC\_CONNECTED | The capability to support reporting a measurement based on measuring M=1 or 2 samples (instances) of a DL PRS resource set | If the UE does not provide the capability, the UE is assumed to support M=4 only | per band |

RAN4’s UE feature 14-2: PRS measurement for reduced sample in RRC\_INACTIVE state is a per UE capability:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 14-2 | PRS measurement for reduced sample in RRC\_inactive state | Capability of supporting reduced number of samples (M=1, 2) for PRS measurement in RRC\_inactive state | 27-17 | The reduced number of samples (M=1,2) for PRS measurement in RRC\_inactive state cannot be supported. The UE is assumed to support M=4 only. | Per UE |

Therefore, RAN2 requires a clarification on whether a unified design in terms of the granularity of the UE capability for reduced samples of PRS measurement in the UE feature 27-3-1 from RAN1 and the UE feature 14-2 from RAN4 is needed, i.e., whether to change the type of 27-3-1 to per UE (RAN1’s responsibility) or to change the type of 14-2 to per band (RAN4’s responsibility).

**2. Actions:**

**To RAN1 and RAN4,**

**ACTION:**

* RAN2 respectfully asks RAN1 and RAN4 to clarify whether a unified design in terms of the granularity (i.e., per band or per UE) of the UE capability for reduced samples of PRS measurement in the UE feature 27-3-1 from RAN1 and the UE feature 14-2 from RAN4 is needed and provide feedback to RAN2.

**3. Date of Next RAN WG2 Meetings:**

RAN2 #119-bis-e 10– 19 October 2022 Electronic Meeting

RAN2 #120 14-18 November 2022 Europe