**3GPP TSG RAN WG1 #106-e DRAFT R1-21NNNN**

**e-Meeting, August 16th – 27th, 2021**

Title: [DRAFT ]LS on beam/antenna information for DL AOD in NR positioning

Response to:

Release: Release-17

Work Item: NR\_pos\_enh

Source: RAN WG1

To: RAN WG2, RAN WG3

Cc:

**Contact Person:**

Name: Florent Munier

Tel. Number:

E-mail Address: florent.munier@ericsson.com

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

Attachments: N/A

1 Overall description

RAN1 made the following agreement regarding the gNB optionally providing beam/antenna information to the LMF.

|  |
| --- |
| Agreement:For the beam/antenna information to be optionally provided to the LMF by the gnodeB, decide to support one of the following options:* Option 2.1: The gNB reports quantized version of the relative Power/Angle response per PRS resource per TRP
	+ The relative power is defined with respect to the peak power of that resource
	+ FFS: How many relative power levels can be included (e.g., single -3 dB power-levels, multiple power-levels, etc).
* Option 2.2: The gNB reports quantized version of the relative Power between PRS resources per angle per TRP.
	+ The relative power is defined with respect to the peak power in each angle
	+ For each angle, at least two PRS resources are reported.
* FFS: support of multiple levels of quantization
* FFS: how the report is constructed
* FFS: overhead reduction mechanisms, including reusing of associated-dl-PRS-ID as a way of signaling that 2 TRPs have the same beam information
* The gNB beam/antenna information can optionally be provided to the UE by the LMF
* Note: Up to RAN2 & RAN3 the signaling/procedures on how the LMF receives this information from the gNBs
* Send an LS to RAN2 & RAN3 with this agreement
 |

2 Actions

**To RAN2, RAN3**

**ACTION:** RAN1 respectfully ask RAN2, RAN3 to take the above information into consideration in their future work.

3 Dates of next TSG RAN1 meeting

TSG-RAN WG1 Meeting #106bis-e 11 – 19 October 2021 E-Meeting

TSG-RAN WG1 Meeting #107-e 11 – 19 November 2021 E-Meeting