**3GPP RAN WG2 Meeting #109bis-e Draft R2-2003984**

**Online, 20th – 30th April, 2020**

**Title: Draft Response LS on SRS for NR Positioning**

**Response to: R1-1911634**

**Release: Release 16**

**Work Item: NR\_POS**

**Source: RAN2**

**To: RAN3**

**Cc: RAN1**

**Contact Person:**

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**Attachments:**

**1. Overall Description:**

RAN2 has discussed the issue of support of aperiodic SRS. From RAN2 perspective, the RRC signalling can currently configure UE with aperiodic SRS for positioning, but RAN2 would like to check with RAN3 if it is feasible to complete the work on aperiodic SRS from NRPPa perspective.

RAN2 also discussed the support of semi-persistent SRS and concluded the following

Agreements:

The Activation/Deactivation of the SP SRS is recommended by LMF to gNB; and the activation/deactivation MAC CE is sent by gNB to UE (no stage 3 impact for RAN2).

Leave the design of NRPPa message for SRS triggering to RAN3 while capture the purpose and content of the message at stage 2 level in RAN2.

that the Activation/Deactivation of the SP SRS is recommended by LMF to serving gNB and the final activation/deactivation decision is done by serving gNB and executed by sending a MAC CE to UE. The recommendation by LMF to serving gNB for Activation/Deactivation of SP SRS requires NRPPa signalling.

In addition, RAN2 discussed the spatial relation of SRS, and agreed the following:

Agreements:

Spatial relation of SRS is recommended by the LMF and decided by the gNB. It is up to gNB implementation whether to follow the LMF recommendation. The gNB informs the LMF of its decision.

UE does not report RSRP of DL-PRS in RRC procedures for SRS configuration.

 Keep the current SSB configuration for the DL-only positioning in the LPP message.

Keep the current configuration of SSB in RRC for UL-only positioning. This means that the RRC configuration can carry the full SSB configuration or SSB index and PCI.

For the assistance information in NRPPa for SSB configuration for UL-only positioning, it should include both TF configuration and SSB index in the NRPPa message.

RAN2 understand that the design of NRPPa message for SRS triggering, recommendation of spatial relation of SRS,and assistance information for SSB configuration for UL-only positioning should be done in RAN3, and therefore respectfully ask RAN3 to take RAN2 agreements into account in their further work.

**2. Actions:**

**To RAN3:**

**ACTION 1:**

RAN2 respectfully ask RAN3 if it is feasible to complete the work on aperiodic SRS from RAN3 perspective, and feedback if any;

**ACTION 2:**

RAN2 respectfully ask RAN3 to take into account corresponding agreements made by RAN2 in their further work.

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

TSG RAN WG2 Meeting #110e 01 – 12 June 2020, E-Meeting

TSG RAN WG2 Meeting #111 24 – 28 August 2020, Toulouse, France