**3GPP TSG RAN WG1 #107-e R1-21xxxxx**

**e-Meeting, November 11th – 19th, 2021**

**Title:** [Draft] LS on L1-RSRP measurement behaviour when SSBs associated with different PCIs overlap

**Response to:**

**Release:** Rel-17

**Work Item:** NR\_feMIMO-Core

**Source:** RAN1

**To:** RAN4

**CC:** RAN2

**Contact Person:**

**Name:**

**E-mail Address:**

**1. Overall Description:**

In RAN1 #106b-e and #107e, RAN1 discussed the UE measurement behaviour for L1-RSRP when SSBs associated with different PCIs overlap. Pertinent to this aspect, the following agreements have been made. RAN1 would like to recommend RAN4 to further investigate this issue and inform RAN1 the expected UE behaviour from RAN4 perspective.

**Agreement**

On Rel-17 enhancements for inter-cell beam management and inter-cell mTRP, NMAX (the maximum number of RRC-configured PCIs different from the serving cell for measurement/reporting) is up to UE capability with candidate values of at least 1 and X.

* Note: The upper bound for X as agreed in AI 8.1.2.2
* When NMAX is configured to be X, the UE is RRC-configured for L1-RSRP measurement with up to X PCIs different from the serving cell PCI
* Additional restriction may be added by RAN4
* FFS: UE measurement behaviour when SSBs associated with different PCIs overlap, including whether this is up to UE capability

**Agreement**

Send an LS to RAN4 to inform and recommend them to investigate the following issue:

* On Rel-17 enhancements for inter-cell beam management and inter-cell mTRP, the UE behavior when there is overlap for L1-RSRP measurement for SSB associated with serving cell PCI and PCIs different from the serving cell PCI

Note: Discussion in UE feature agenda on this issue is not ruled out

**2. Actions:**

**To RAN4**

**ACTION:**

RAN1 would like to respectfully request RAN4 to take the above information into account for expected L1-RSRP measurement behaviour on SSBs associated with different PCIs and inform RAN1 the expected UE behaviour from RAN4 perspective.

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

TSG-RAN WG1 Meeting #107b-e 17th Jan. – 25th Jan. 2022 emeeting

TSG-RAN WG1 Meeting #108-e 21st Feb. – 3rd Mar. 2022 emeeting