3GPP TSG-RAN WG2 Meeting #119-e ***R2-2209232***

Electronic Meeting, August 17 – 26, 2022

**Agenda item:** 6.11.1

**Source:** Qualcomm Incorporated

**Title:** Summary of [Post119-e][413][POS] 37.355 CR (Qualcomm)

**Document for:**  Discussion

# 1. Introduction

This document summarizes the following email discussion:

* [Post119-e][413][POS] 37.355 CR (Qualcomm)

Scope: Check and finalise the CR in R2-2208800.

Intended outcome: Agreed CR

Deadline: Short (for RP)

# 2. Discussion

## 2.1 Agreements

Agreement:

Correct the ASN.1 requestedDL-PRS-ProcessingSamples-r17 in a backward compatible manner:

requestedDL-PRS-ProcessingSamples-r17 ENUMERATED { requested, ... }

LS to RAN1/RAN4 to ask about the capability confusion on this point between per-band and per-UE.

Agreement:

The field name lowerRxBeamSweepingThan8-FR2-r17 in IE PRS-ProcessingCapabilityPerBand-r16 should be changed to supportedLowerRxBeamSweepingThan8-FR2-r17.

Agreements:

Add clarification in the field description of On-Demand-DL-PRS-Configuration, e.g., UE ignores the parameters that the LMF cannot meaningfully fill (e.g. TRP dependent). Details to be checked in the LPP email discussion ([424]).

Agreement:

CR in R2-2207419 to be captured in the LPP email discussion [424]; details can be discussed.

Agreements:

Introduce the timing error margin values for the Tx TEG case, using a BC change. Rx and RxTx (in LPP) will be introduced if/when RAN4 provide final values.

Change for Tx to be taken into account in the RRC email discussion [411].

Agreement:

For UE-based positioning, the selected Tx-TEG margin for TRP is added in NR-DL-PRS-TRP-TEG-Info.

Agreement:

P5/P6/P7/P8/P9 of R2-2208794 to be discussed in the LPP email discussion [424].

Agreements:

TP1 from R2-2208830 is taken into the RRC CR, with the details to be finalised in CR discussion.

TP2 and TP3 from R2-2208830 are taken into the LPP CR, with the details to be finalised in CR discussion.

All three TPs to be implemented in an ASN.1 BC way (i.e. the extension is optionally present, with a clear explanation that absence of the field means the maximum value).

The above agreements have been implemented in document "**R2-22xxxxx\_(CR 37355)\_v04.docx**" provided in the same folder as this discussion document.

Please add your comments on the draft CR "**R2-22xxxxx\_(CR 37355)\_v04.docx**" in the Table below.

## 2.2 Comments

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| --- | --- | --- | --- |
| Company | Change# or section or IE | Comments | Rapporteur's comments |
| Huawei,HiSilicon | DL-PRS-QCL-InfoReq | It should be added in the field description that how dl-prs-QCL-InformationReq is set when dl-prs-QCL-InfoRecPerResource is included. | Does not look essential, since the field shall be ignored by the receiver:  " If this field is present, the *dl-prs-QCL-InformationReg* shall be ignored by the receiver."  Any preference on how it shall be set by the sender? |
|  | TEG-TimingErrorMargin  . RxTxTEG-TimingErrorMargin | Add reference for how Tc is defined, ie., "Tc” is defined in TS 38.211 [41] clause 4.1. | Added in \_v05 of the CR. |
| vivo | The IE dl-prs-QCL-InformationReq is duplicated in NR-On-Demand-DL-PRS-PerFreqLayer and DL-PRS-QCL-InfoReq-r17 | One of them shall be renamed. The IE name in the field description shall be updated correspondingly. | Changed the 1st one to  *dl-prs-QCL-InformationReq****TRPlist****-r17*  in \_v05 of the CR. |
|  | ***Field description of***  ***dl-prs-QCL-InfoRecPerResource*** | The new field is subject to the dl-prs-QCL-InformationReq.  ***dl-prs-QCL-InformationReq***  This field specifies the recommended or requested QCL indication with other DL reference signals.  - ***dl-PRS-ID*** indicates the DL-PRS ID of the TRP for which the QCL information is recommended.  - ***nr-PhysCellID*** indicates the physical Cell-ID of the TRP for which the QCL information is recommended, as defined in TS 38.331 [35].  - ***nr-CellGlobalID*** indicates the NCGI, the globally unique identity of a cell in NR, of the TRP for which the QCL information is recommended, as defined in TS 38.331 [35].  - ***nr-ARFCN*** indicates the NR-ARFCN of the TRP's CD-SSB (as defined in TS 38.300 [47]) corresponding to nr-PhysCellID.  - ***dl-prs-QCL-InformationReqSet*** indicates the recommended QCL information per DL-PRS Resource Set.  - ***nr-DL-PRS-ResourceSetID*** indicates the DL-PRS Resource Set ID for which the QCL information is recommended.  - ***dl-prs-QCL-InformationReq***  - ***dl-prs-QCL-InfoRecPerResourceSet*** provides a single recommended QCL source for the PRS Resource Set.  - ***dl-prs-QCL-Info-requested*** indicates that the UE requests to provide the QCL information in the assistance data.  - ***dl-prs-QCL-InfoRecPerResource*** provides a list of recommended QCL sources for the PRS Resource Set. If this field is present, the *dl-prs-QCL-InformationReg* shall be ignored by the receiver. | Fixed in \_v05 of the CR. |
| Ericsson | To be consistent in the field description; we can say indicates instead of provides | For above:  - ***dl-prs-QCL-InformationReq***  - ***dl-prs-QCL-InfoRecPerResourceSet***indicates a single recommended QCL source for the PRS Resource Set.  - ***dl-prs-QCL-Info-requested*** indicates that the UE requests to provide the QCL information in the assistance data.  - ***dl-prs-QCL-InfoRecPerResource* indicates**a list of recommended QCL sources for the PRS Resource Set. If this field is present, the *dl-prs-QCL-InformationReg* shall be ignored by the receiver. | Changed in \_v06 of the CR. |
| Nokia | lowerRxBeamSweepingThan8-FR2-r17 and supportedLowerRxBeamSweepingThan8-FR2-r17 | In these field names, can we change “Than8” to “Factor”. The field description anyway clarifies that these are factors lower than 8. | Changed in \_v06 of the CR. |
| *TEG-TimingErrorMargin* | The first sentence of the IE description can be kept as it is as an IE description while the second sentence in the IE description for should be moved to a field description for *TEG-TimingErrorMargin-r17* | This IE has no fields. Adding the Tc reference to the IE introduction text seems appropriate. |
| Change #7 | The agreement was only for Tx TEG case as shown here: “Introduce the timing error margin values for the Tx TEG case, using a BC change. Rx and RxTx (in LPP) will be introduced if/when RAN4 provide final values.” | Please see RAN4 LS in R2-2209168. |
| ***reducedDL-PRS-ProcessingSamples*** | In the field description of ***reducedDL-PRS-ProcessingSamples,*** should we explicitly indicate the measurement as there are multiple measurements possible? Does it apply to first path RSRP also? | The feature/capability is about reduced DL-PRS processing samples. Therefore, it is applicable to all measurements based on DL-PRS. |
| ***reducedDL-PRS-ProcessingSamples*** | Since this field is an enumerated field, the field description should say “if present and set to requested” | Changed in \_v06 of the CR. |
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