**3GPP TSG RAN WG1 #122 R1-250XXXX**

**Bengaluru, India, Aug 25th – 29th, 2025**

Agenda Item: 8.1

Source: Ad-Hoc Chair (Ericsson)

Title: Session notes for 8.1 Maintenance on Artificial Intelligence (AI)/Machine Learning (ML) for NR Air Interface

Document for: Discussion, Decision



## Maintenance on Artificial Intelligence (AI)/Machine Learning (ML) for NR Air Interface

[122-R19-AI/ML] Email discussion on AI/ML – Juan (Qualcomm)

* To be used for sharing updates on online/offline schedule, details on what is to be discussed in online/offline sessions, tdoc number of the moderator summary for online session, etc

**R1-2506171** Draft CR for TR 38.843 with RAN1 agreements Qualcomm Incorporated

**Agreement**

The Draft CR in R1-2506171 for TR 38.843 is endorsed.

### Specification support for beam management

R1-2505202 Maintenance of Rel-19 AI/ML for beam management Huawei, HiSilicon

R1-2505252 AI/ML based Beam Management Google

R1-2505312 Remaining issues on AI/ML-based beam management CATT

R1-2505367 Maintenance on specification support for beam management vivo

R1-2505425 Maintenance on AI/ML for beam management Xiaomi

R1-2505483 Discussion on maintenance of AI beam management ZTE Corporation, Sanechips

R1-2505530 Remaining issues on AI/ML based beam management Samsung

R1-2505657 Maintenance of AI beam management Ofinno

R1-2505731 On specification for AI/ML-based beam management OPPO

R1-2505785 Maintenance on AI/ML-based beam management Panasonic

R1-2505799 Maintenance on AI/ML Beam Management Nokia

R1-2505814 Maintenance on AI/ML for beam management LG Electronics

R1-2505872 Remaining issues in AI/ML enhancements for beam management Apple

R1-2505928 Remaining issues on specification support for beam management NEC

R1-2505958 Remaining issues on specification support for beam management Fujitsu

R1-2506044 Maintenance on AI/ML specification support for beam management Lenovo

R1-2506050 Discussion on specification support for beam management ETRI

R1-2506074 Maintenance of specification support for beam management CMCC

R1-2506168 Maintenance on Rel-19 AI/ML Beam Management Ericsson

R1-2506172 Specification support for AI-ML-based beam management Qualcomm Incorporated

R1-2506246 Remaining issues on specification support for beam management Sharp

R1-2506269 Maintenance on AI/ML for beam management NTT DOCOMO, INC.

R1-2506337 Discussion on AIML based beam management ASUSTeK

**R1-2506451**

**Agreement:**

Adopt the following TP for the clarification of ranking information.

**Reason for change:** The description of ranking information for P-CRIs or P-SSBRIs is unclear.

**Summary of change:** Clarify that the ranking information is for P-CRIs or P-SSBRIs.

**Consequences if not approved:** UE cannot generate the ranking information.

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| **TP for TS 38.214 Clause 5.2.1.4.3a P-CRI, P-SSBRI, and P-L1-RSRP reporting**  <omitted texts>  For a *CSI-ReportConfig* with *reportQuantity-r19* set to 'p-cri-r19', 'p-cri-RSRP-r19', 'p-ssb-index-r19' or 'p-ssb-index-RSRP-r19', if *nroftimeinstance-r19* is configured, the UE is configured with *TimeGap-r19* indicating a time gap between a reference time and the earliest time instance of *nroftimeinstance-r19* time instance(s) (defined in slot(s)). If *nroftimeinstance-r19* is greater than 1, the same time gap is considered between two consecutive time instances. The UE considers the reference time to be the slot of the latest one of each CSI-RS/SSB resource, for channel measurement, respective latest CSI-RS/SSB transmission occasion no later than the corresponding CSI reference resource of the CSI report.  For P-CRI or P-SSBRI reporting without P-L1-RSRP, the ranking information of the *nrofreportedpredictedrs-r19* P-CRIs or P-SSBRIs (per time instance, if *nroftimeinstance-r19* is configured) is conveyed by the order of the P-CRIs or P-SSBRIs reported in the CSI report, where the first reported P-CRI or P-SSBRI ranks first.  <omitted texts> |

**Agreement:**

Adopt the following TP for CSI reporting for monitoring.

**Reason for change:** The condition associated with CSI reporting for RS-PAI is unclear.

**Summary of change:** Clarify that the *timeinstanceformonitoring-r19*-thtime instance is used in case of BM-Case2 for condition check. Adding the description on resource mapping methods depending on the size of the set for monitoring is smaller than or the same as the size of Set A.

**Consequences if not approved:** gNB and UE may have different understanding on the condition associated with CSI reporting for RS-PAI.

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| **TP for TS 38.214 Clause 5.2.1.4.3b RS-PAI Reporting**  5.2.1.4.3b RS-PAI Reporting  <omitted texts>  - at least one of the *nrofBestBeamforMonitoring-r19* identified CSI-RS resources, or SS/PBCH Block resources is mapped one of the *nrofreportedpredictedrs-r19* reported P-CRI(s) or P-SSBRI(s)~~,~~ if *nroftimeinstance-r19* is not configured, or for the *timeinstanceformonitoring-r19*-thtime instance if *nroftimeinstance-r19* is configured, of the linked report of the first CSI Reporting Setting, wherein the mapping between CSI-RS resources, or SS/PBCH Block resources of Resource Set for channel measurement of the second CSI Reporting Setting and CSI-RS resources, or SS/PBCH Block resources of Resource Set given by *resourcesForSetA-r19* of the first CSI Reporting Setting is provided by the higher layer parameter *RSMappingtoSetA* in the second CSI Reporting Setting;  - if this condition is met, the transmission occasion is counted as an accurate reference signal prediction instance; otherwise, it is not counted as an accurate reference signal prediction instance;   * determine RS-PAI as the total count of accurate reference signals prediction instance(s), and the UE shall report RS-PAI for the second Reporting Setting, with a -bit field (*M* is given by *nroftransmissionOccasion-r19*).   <omitted texts> |

**Agreement:**

Adopt the following TP in section 5.2.1.6, TS 38.214.

**Reason for change:** The CPU occupation time of the monitoring report is unclear.

**Summary of change:** For UE-sided model, regarding a CSI report with *CSI-ReportConfig* for monitoring, Rel-15 CPU occupation time is reused for CPU occupation time of the CSI report for all types of CSI reports (i.e., AP/SP/P CSI report).

**Consequence if not approved:** The CPU occupation time of the monitoring report is not aligned between the gNB and UE, leading to inefficient CSI report scheduling.

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| **5.2.1.6 CSI processing criteria**  <Unchanged part is omitted>  For a CSI report with *CSI-ReportConfig* with higher layer parameter *reportQuantity* not set to 'none', or a CSI report with *LTM-CSI-ReportConfig*, or *reportQuantity* not set to 'none-bm-r19' or 'none-csi-r19', the CPU(s) (including and/or , for CSI reports with *reportQuantity* set to 'p-cri-r19', 'p-cri-RSRP-r19', 'p-ssb-index-r19', or 'p-ssb-index-RSRP-r19' or 'rs-pai-r19', and CSI reports configured with the higher layer parameter *[RRC\_name-r19]* are occupied for a number of OFDM symbols as follows:  - A periodic or semi-persistent CSI report (excluding an initial semi-persistent CSI report on PUSCH after the PDCCH triggering the report and a semi-persistent CSI report on PUSCH configured with the higher layer parameter *codebookType* set to 'typeII-Doppler-r18' or 'typeII-Doppler-PortSelection-r18') occupies CPU(s) from the first symbol of the earliest one of each CSI-RS/CSI-IM/SSB resource, or each CSI-RS/CSI-IM resource associated with all configured sub-configurations for periodic CSI report corresponding to a *CSI-ReportConfig* that contains a list of sub-configurations provided by *csi-ReportSubConfigToAddModList*, or each CSI-RS/CSI-IM resource associated with all activated/triggered sub-configurations for semi-persistent CSI report corresponding to a *CSI-ReportConfig* that contains a list of sub-configurations provided by *csi-ReportSubConfigToAddModList*, for channel or interference measurement, respective latest CSI-RS/CSI-IM/SSB occasion no later than the corresponding CSI reference resource, until the last symbol of the configured PUSCH/PUCCH carrying the report.  <Unchanged part is omitted> |

Agreement

Adopt the following TP for Clause 6.3.1.1.2 in TS 38.212.

**Reason for change:** For NW-sided model, for a *CSI-ReportConfig* with the number of reported RS is the same as the size of the corresponding resource set for channel measurement, the mapping between the reported RSRPs and the resources within the resource set is unclear.

**Summary of change:** Clarify the mapping between the reported RSRPs and the resources within the resource set when the number of reported RS of a *CSI-ReportConfig* is the same as the size of the corresponding resource set for channel measurement.

**Consequence if not approved:** The understanding of resources corresponding to reported RSRPs is not aligned between the gNB and UE.

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| **Table 6.3.1.1.2-8G: Mapping order of CSI fields of one report for CRI/RSRP or SSBRI/RSRP reporting, if *nrofReportedRS* is configured**   |  |  | | --- | --- | | **CSI report number** | **CSI fields** | | CSI report #n | CRI or SSBRI #1 as in Table 6.3.1.1.2-6 | | CRI or SSBRI #2 as in Table 6.3.1.1.2-6, if reported | | … | | CRI or SSBRI # as in Table 6.3.1.1.2-6, if reported | | RSRP #1 as in Table 6.3.1.1.2-6 | | Differential RSRP #2 as in Table 6.3.1.1.2-6, if reported | | … | | Differential RSRP # as in Table 6.3.1.1.2-6, if reported | | NOTE: The value of is configured by the higher layer parameter *nrofReportedRS*. If is equal to the number of SSB/CSI-RS resources in the corresponding resource set for channel measurement, Differential RSRP #m, m= 2, …, , corresponds to the (m-1)-th SSB/CSI-RS resources among the remaining -1 SSB/CSI-RS resources other than the resource corresponding to CRI/SSBRI#1 in the resource set. | | |  | | |

**R1-2506452**

Agreement

For one CSI resource setting for Set A for CSI report for inference for UE-side model

* Only a single resource set can be configured for the CSI resource setting.

Agreement

Support the following on the reporting condition of CSI reporting for inference

* For BM-Case2, after the CSI report (re)configuration, serving cell activation, BWP change, or activation of SP-CSI, UE transmit a CSI report for inference only if receiving at least K latest consecutive transmission occasion for each of the RS resources in Set B no later than the corresponding CSI reference resource, where K is indicated by a new UE capability.

Agreement

Support the following on the reporting condition of CSI reporting for monitoring

* After the CSI report (re)configuration, serving cell activation, BWP change, or activation of SP-CSI, UE transmit a CSI report for monitoring only if receiving at least *nroftransmissionOccasion-r19* latest transmission occasion for each of the RS resources in the resource set for monitoring no later than the corresponding CSI reference resource.

Proposal 2.4.1-A

For AP CSI report for inference, regarding the associated ID for aperiodic CSI resource setting with multiple resource sets for Set B

* Associated ID in CSI report configuration is for the ~~selected~~ resource set(s) for Set B
  + ~~Note: It is up to NW implementation to ensure the multiple resource sets are with the similar property~~
  + Note: This does not have impact on RAN1 specifications

### Specification support for positioning accuracy enhancement

R1-2505178 Remaining Issues of AI/ML for Positioning Accuracy Enhancement Ericsson Telecom S.A. de C.V.

R1-2505203 Maintenance of Rel-19 AI/ML for positioning accuracy enhancement Huawei, HiSilicon

R1-2505253 AI/ML based Positioning Google

R1-2505313 Remaining issues on AI/ML-based positioning CATT, CICTCI

R1-2505368 Maintenance on specification support for positioning accuracy enhancement vivo

R1-2505484 Discussion on maintenance of AI positioning enhancement ZTE Corporation, Sanechips

R1-2505531 Remaining issues on AI/ML based positioning Samsung

R1-2505732 On specification for AI/ML-based positioning accuracy enhancements OPPO

R1-2505800 Maintenance on AI/ML Positioning Accuracy Enhancement Nokia

R1-2505829 Remaining issues on AI/ML based positioning InterDigital, Inc.

R1-2505873 Remaining issues on Specification support for positioning accuracy enhancement Apple

R1-2505925 Remaining issues on AIML based positioning accuracy enhancement NEC

R1-2506075 Maintenance of specification support for positioning accuracy enhancement CMCC

R1-2506173 Specification support for AI-ML-based positioning accuracy enhancement Qualcomm Incorporated

R1-2506247 Remaining issues on specification support for AI/ML based positioning accuracy enhancements Sharp

R1-2506270 Maintenance on AI/ML for positioning accuracy enhancement NTT DOCOMO, INC.

**R1-2506436**

**Agreement:**

Adopt the text proposal to TS 38.215 v19.0.0 in Section 3 of R1-2505531.

R1-2506437

**Agreement**

Endorse the following text proposal to TS 38.214 v19.0.0.

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| **Reason for change** | Currently PRU is captured within the subsection of CPP, and it is limited to only when the UE is provided with phase related measurement together with other measurement(s).  However, AI/ML positioning does not require the activation of CPP, although CPP is not prevented from being activated simultaneously. |
| **Summary of change** | Addition of PRU data in the general section of 5.1.6.5. |
| **Consequences if not approved** | The data related to PRU will not be supported for AI/ML positioning if CPP method is not activated simultaneously. |
| **Suggested text proposal** | TS 38.214 (V19.0.0)  5.1.6.5 PRS reception procedure  ================= text omitted===============================  Within each window indicated by *NR-DL-PRS-MeasurementTimeWindowsConfig*, the UE expects that the indicated DL PRS resource sets across all *dl-PRS-IDs* are from one DL PRS positioning frequency layer, and that the number of indicated DL PRS resource sets associated with each *dl-PRS-ID* are the same.  The UE may be provided with *NR-PRU-DL-Info* which contains measurement(s) performed by a positioning reference unit (PRU) [20, TS 38.305], the timestamps associated with the measurement(s), and the location information of the PRU.  ================= text omitted=============================== |

**Agreement**

Update the following LPP parameters in higher layer parameter list to RAN2.

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|  | **Sub-feature group** | **RAN2 Parent IE** | **Parameter name in the spec** | **New or existing?** | **Description** | **Value range** | **Per (UE, cell, TRP, …)** |
| **Associated ID for Info #7** | UE-based positioning Case 1 | FFS for RAN2 | AssociatedID-TRP-LocationInfo | New | The associated ID (optional) provides implicit indication of Info #7. For given TRP(s), the same associated ID implies that geographical coordinates of the TRP(s) can be understood as consistent by the UE. The associated ID is not expected to provide the real value of Info #7 (i.e., geographical coordinates of the TRP(s) are not disclosed). An associated ID is configured per-cell (e.g., NCGI-r15). Note: Info #7 can be provided explicitly (as in legacy UE-based DL-TDOA) or implicitly by Associated ID. | FFS for RAN2 (e.g., 0..255) | Per cell |

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|  | **Sub-feature group** | **RAN2 Parent IE** | **Parameter name in the spec** | **New or existing?** | **Description** | **Value range** | **Per (UE, cell, TRP, …)** |
| **Assistance data Info #7** | UE-based positioning Case 1 | FFS for RAN2 | (It is up to RAN2 to decide which existing IEs to include for providing Info #7) | Existing | LMF can provide to UE the assistance information (optional) from legacy UE-based DL-TDOA: Info #7 in Table 8.12.2.1.0-1 in 38.305 v18.3.0. Note: Info #7 can be provided explicitly (as in legacy UE-based DL-TDOA) or implicitly by Associated ID. | Reuse existing | Per UE |

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|  | **Sub-feature group** | **RAN2 Parent IE** | **Parameter name in the spec** | **New or existing?** | **Description** | **Value range** | **Per (UE, cell, TRP, …)** |
| **Assistance data Info #1 ~ Info #6, Info #8 ~ Info #15** | UE-based positioning Case 1 | FFS for RAN2 | (It is up to RAN2 to decide which existing IEs to include for providing Info #1 ~ Info #6, Info #8 ~ Info #15) | Existing | LMF can provide to UE the assistance information (optional) from legacy UE-based DL-TDOA: Info #1 ~ Info #6, Info #8 ~ Info #15 in Table 8.12.2.1.0-1 in 38.305 v18.3.0. | Reuse existing | Per UE |

**Conclusion:**

RAN1 has no consensus whether the IE for assistance data Info#7 and AssociatedID-TRP-LocationInfo can be simultaneously enabled.

It is upto RAN2 to decide whether the IE for assistance data Info#7 and AssociatedID-TRP-LocationInfo can be simultaneously enabled.

**Agreement**

Include the IE for Rel-19 enhanced measurement (i.e., UL SRS-TDCT, UL SRS-TDCP in 38.215) in higher layer parameter list to RAN3.

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|  | **Sub-feature group** | **RAN3 Parent IE** | **Parameter name in the spec** | **New or existing?** | **Description** | **Value range** | **Per (UE, cell, TRP, …)** |
| **Rel-19 enhanced measurement** | NG-RAN node assisted positioning Case 3b | FFS for RAN3 | FFS for RAN3 | New | Rel-19 enhanced channel measurement, which can be either (a) or (b): (a) UL SRS-TDCT; (b) paired UL SRS-TDCT and UL SRS-TDCP. |  | Per UE |

### Specification support for CSI prediction

R1-2505139 Maintenance for CSI prediction Ericsson

R1-2505151 Text proposal on specification support for AI/ML processing unit FUTUREWEI

R1-2505204 Maintenance of Rel-19 AI/ML for CSI prediction Huawei, HiSilicon

R1-2505254 AI/ML based CSI Prediction Google

R1-2505314 Remaining issues on AI/ML-based CSI prediction CATT

R1-2505369 Maintenance on specification support for CSI prediction vivo

R1-2505426 Discussion on remained issues on AI based CSI prediction Xiaomi

R1-2505485 Discussion on maintenance of AI CSI prediction ZTE Corporation, Sanechips

R1-2505532 Remaining issues on AI/ML based CSI prediction Samsung

R1-2505733 On specification for AI/ML-based CSI prediction OPPO

R1-2505765 Specification support for CSI prediction Quectel

R1-2505801 Maintenance on AI/ML CSI Prediction Nokia

R1-2505815 Maintenance on CSI prediction LG Electronics

R1-2505874 Remaining issues for AI based CSI prediciton Apple

R1-2505934 Remaining issues on specification support for CSI prediction NEC

R1-2505996 Discussion on AI/ML for CSI prediction HONOR

R1-2506076 Maintenance of specification support for CSI prediction CMCC

R1-2506174 Specification support for CSI prediction Qualcomm Incorporated

R1-2506248 Remaining issues on specification support for AI/ML based CSI prediction Sharp

R1-2506271 Maintenance on AI/ML for CSI prediction NTT DOCOMO, INC.

R1-2506338 Discussion on AIML based CSI prediction ASUSTeK

**R1-2506500**

**R1-2506501**

Agreement

Adopt following TPs for TS38.214 Section 5.2.1.4.6.

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| Reason for change | In current specification, there is no SGCS quantization mapping table. |
| Summary of change | SGCS quantization mapping table is added. |
| Consequences if not approved | Incomplete capture of the agreement. |
| **TS38.214**  5.2.1.4.6 CSI-PAI reporting  << Unchanged parts are omitted >>   * each calculated SGCS value is quantized to a 4-bit field, where the first codepoint ‘0000’ is used to indicate (0 0.3] value range, and the value range [0.3, 1] is quantized in a linear scale with 0.05 step size. Detailed mapping is specified in ~~[xx, TS 38.abc]~~Table 5.2.1.4.6-1.   Table 5.2.1.4.6-1: SGCS Quantization Mapping   |  |  | | --- | --- | | Code Point | Range | | 0 | [0.0000, 0.3000] | | 1 | (0.3000, 0.3500] | | 2 | (0.3500, 0.4000] | | 3 | (0.4000, 0.4500] | | 4 | (0.4500, 0.5000] | | 5 | (0.5000, 0.5500] | | 6 | (0.5500, 0.6000] | | 7 | (0.6000, 0.6500] | | 8 | (0.6500, 0.7000] | | 9 | (0.7000, 0.7500] | | 10 | (0.7500, 0.8000] | | 11 | (0.8000, 0.8500] | | 12 | (0.8500, 0.9000] | | 13 | (0.9000, 0.9500] | | 14 | (0.9500, 1.0000] | | 15 | Reserved |   << Unchanged parts are omitted >> | |

**Agreement:**

Adopt following TPs for TS38.214 Section 5.2.1.4.6.

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| Reason for change | Based on the agreement, the reported wideband SGCS is the average of SGCS values across all subbands, not directly derived from the average precoder. |
| Summary of change | The definition of SGCS needs to be changed to the average of SGCS values across all subbands. |
| Consequences if not approved | Incorrect capture of the agreement. |
| **TS38.214**  5.2.1.4.6 CSI-PAI reporting  << Unchanged parts are omitted >>  to report CSI-PAI for the second Reporting Setting, the UE shall:  - determine predicted PMI (see Clause 5.2.2.2.10 or Clause 5.2.2.2.11) for each of the subband(s) configured by *csi-ReportingBand* *and numberOfPMI-SubbandsPerCQI-Subband* for the -th time instance configured by *timeinstanceforCSImonitoring-r19* in the second Reporting Setting ( , with provided in the first Reporting Setting), based on the CSI prediction performed by the UE using the channel measurement corresponding to the first Reporting Setting,  - determine non-predicted PMI for each of the subband(s) configured by *csi-ReportingBand and numberOfPMI-SubbandsPerCQI-Subband*, which is corresponding to the -th time instance of the report of the first Reporting Setting, based on the CSI-RS resource(s) in the resource set for channel measurement for the report corresponding to the second Reporting Setting.  - determine non-predicted PMI for each of the subband(s) configured by *csi-ReportingBand and numberOfPMI-SubbandsPerCQI-Subband*, based on the latest CSI-RS resource transmission occasion, no later than the CSI reference resource of the CSI report, corresponding to the first Reporting Setting  - for , is the RI reported for the CSI report corresponding to the first Reporting Setting, calculate SGCS value(s) as,  ,  ,  ~~,~~  ~~,~~  where is the predicted precoder represented by predicted PMI for -th layer,  ~~averaged over all the subbands configured by~~ *~~csi-ReportingBand~~*~~,~~ -th subband, and for -th time instance corresponding to the report of the first Reporting Setting, is the precoder represented by non-predicted PMI for -th layer,  ~~averaged over all the subbands configured by~~ *~~csi-ReportingBand~~*~~,~~ -th subband, based on the channel measurement corresponding to the second Reporting Setting, and is the precoder represented by PMI for -th layer and ~~averaged over all the subbands configured by~~ *~~csi-ReportingBand~~* -th subband, corresponds to the subbands configured by *csi-ReportingBand and numberOfPMI-SubbandsPerCQI-Subband,* based on the latest CSI-RS resource transmission occasion, no later than CSI reference resource, corresponding to the report of the first Reporting Setting.  << Unchanged parts are omitted >> | |

Agreement

For CSI-PAI report, UE is expected to be configured with the same subband configuration with that of inference report.

Agreement

For CSI prediction, for monitoring report, SP CSI report is only supported on PUSCH.

Agreement

The following TP2.6-1 and TP2.6-2 are endorsed as editorial corrections for TS 38.214.

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| **TP 2.6-1**  < Unchanged parts are omitted >  5.2.1.4.6 CSI-PAI reporting  When the UE is configured with a first CSI Reporting Setting for reporting CSI prediction, based on a *CSI-ReportConfig* configured with the higher layer parameter *[RRC\_name-r19]* and a second CSI Reporting Setting for reporting CSI-PAI, based on a *CSI-ReportConfig* with *reportQuantity-r19* set to 'csi-pai-r19', and the second Reporting Setting is linked to the first Reporting Setting by *inferenceReportConfigId-r19*, the reporting of CSI-PAI corresponding to the second CSI Reporting Setting shall consider the following:  - when aperiodic Reporting Setting is configured for both first and second Reporting Settings:  - if aperiodic CSI-RS resources are configured for channel measurement for the first Reporting Setting, the UE is expected to receive the PDCCH triggering a CSI report of the second Reporting Setting, if any, no later than the first symbol of the earliest occasion of, , aperiodic CSI-RS resources in the resource set for channel measurement for the first Reporting Setting.  - if a single periodic or semi-persistent CSI-RS resource is configured for channel measurement for the first Reporting Setting, the UE is expected to receive the PDCCH triggering a CSI report of second Reporting Setting, if any, no later than the first symbol of the earliest transmission occasion of the most recent, , periodic or semi-persistent CSI-RS resource, no later than the CSI reference resource of the CSI report, corresponding to the first Reporting Setting.  - to report CSI-PAI for the second Reporting Setting, the UE shall:  - determine predicted PMI (see Clause 5.2.2.2.10 or Clause 5.2.2.2.11) for each of the subband(s) configured by *csi-ReportingBand* for the -th time instance configured by *timeinstanceforCSImonitoring-r19* in the second Reporting Setting ( , with provided in the first Reporting Setting), based on the CSI prediction performed by the UE using the channel measurement corresponding to the first Reporting Setting,  - determine non-predicted PMI for each of the subband(s) configured by *csi-ReportingBand*, which is corresponding to the -th time instance of the report of the first Reporting Setting, based on the CSI-RS resource(s) in the resource set for channel measurement for the report corresponding to the second Reporting Setting.  - determine non-predicted PMI for each of the subband(s) configured by *csi-ReportingBand*, based on the latest CSI-RS resource transmission occasion, no later than the CSI reference resource of the CSI report, corresponding to the first Reporting Setting  < Unchanged parts are omitted >  --------------------------------------- End of Text Proposal ------------------------------------ |

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| **TP 2.6-2**  < Unchanged parts are omitted >  5.2.1.4.2 Report quantity configurations  If the UE is configured with a *CSI-ReportConfig* with *reportQuantity-r19* set to 'csi-pai-r19',  - the UE shall be configured with *inferenceReportConfigId-r19* to link another *CSI-ReportConfig* configured with a higher layer parameter *[RRC\_name-r19]*,  - when semi-persistent Reporting Setting is configured for the *CSI-ReportConfig* configured with the higher layer parameter *[RRC\_name-r19]*, the UE is not expected to be configured with a periodic Reporting Setting for the *CSI-ReportConfig* with *reportQuantity-r19* set to 'csi-pai-r19'.  - when aperiodic Reporting Setting is configured for the *CSI-ReportConfig* configured with the higher layer parameter *[RRC\_name-r19]*, the UE is not expected to be configured with a periodic or semi-persistent Reporting Setting for the *CSI-ReportConfig* with *reportQuantity-r19* set to 'csi-pai-r19'.  < Unchanged parts are omitted >  --------------------------------------- End of Text Proposal ------------------------------------ |

**Agreement**

For CSI-PAI report, when the UE is configured with two linked CSI report configurations, adopt UCI padding to fixed size

* based on the maximum rank determined from configuration of RI restriction ~~configured max\_rank~~ (for simplicity denoted by max\_rank here), the size of the CSI-PAI report is 2×max\_rank×4 irrespective of the reported rank ‘v’ in the inference report.
* When the linked inference report indicates rank ‘v’, all ones is padded to LSB of the UCI sequence for each of max\_rank-v fields of SGCS#1 or SGCS#2

**R1-2506502**

**Agreement.**

For PMI assumption on SGCS calculation of  *and* ,support Rel-16 eType II CSI.



**Agreement**

For CSI-PAI report, support

* OCPU =X, X is reported by UE capability
* For AP monitoring report, CPU occupancy starts from the first symbol after the PDCCH triggering the CSI report until the last symbol of the scheduled PUSCH carrying the CSI-PAI report
* For SP monitoring report, CPU occupancy starts from the first symbol of the latest periodic/semi-persistent CSI-RS occasion of the inference report not later than CSI reference resource of the inference report, until the last symbol of the configured PUSCH carrying the CSI-PAI report

Proposal 2.5-8

For CSI prediction using UE-side model, for UE assisted performance monitoring,

* If the inference report is semi-persistent and the monitoring report is aperiodic or semi-persistent, UE is expected to receive the monitoring report triggering DCI or MAC CE activating monitoring report, respectively, if any, no later than the first symbol of the earliest occasion of the most recent Kp periodic or semi-persistent inference measurement resource transmission occasions that are no later than the CSI reference resource of the associated inference report.