**3GPP TSG-****RAN2 Meeting#xxx R2-24xxxxx**

**Tbd**

**Agenda Item:** XXX

**Source:** Ericsson

**Title:** NR R18 38.331 ASN.1 Review, Class 0 issues

**Document for:** Discussion and decision

# Guidelines

* This file is used to log NR 38.331 ASN.1 Review Class 0 issues.
	+ **- Typo, minor wording improvement etc.**
	+ **- ASN.1 field not following naming rules (e.g. incorrect suffix, capitalization, “-“, etc).**
* Fill in the columns, see example.
	+ Make sure the inserted specification text is unique, such that the location of the issue is simple to find.
	+ Avoid indicating duplicated issues by checking if the concerned specification text is already reported in the table.
	+ Step the file name v(x) -> v(x+1) and upload to ftp server.
* Try to identify related WI/TEI for the issue.
* The “Status” column is filled in by the WI CR editor/RRC Spec Rapporteur when the issue is implemented in a CR. Use the following:
	+ WI-code (when implemented in a WI CR
	+ REJ (when issue is rejected)
	+ DUPL (for duplicate issues)

# Class 0 issues

| **Issue**  | **ASN1?****Y/N** | **Copied existing specification text.****Text should be unique, so that it can be easily found in the specification.****If needed, add also the new text.** | **Comment/description/****correction** | **Related WI** | **Email address**  | **Status** |
| --- | --- | --- | --- | --- | --- | --- |
| Ex 1 | NN | 2> derive the KUPint key associated with the *integrityProtAlgorithm* indicated in the SecurityModeCommand message, as specified in TS 33.501 [11]; | Missing italics. | Mob | hakan.l.palm@ericsson.com |  |
| Ex 2 | N | PUSCH scheduled by RAR UL grant (see 38.213 clause 8.3 and 38.214 clause 6.1.2.2) and uses interlaced PUCCH Format 0, 1, 2, and 3 for cell-specific PUCCH (see TS 38.213 [13], clause 9.2.1). | Incorrect reference, should be 9.2.101. | SDT | hakan.l.palm@ericsson.com |  |
| Ex 3 | Y | RbSetGroup, rbSetGroups | RB-SetGroup, rb-SetGroups |  | hakan.l.palm@ericsson.com |  |
| 4 | N | 1> if the received *OtherConfig* includes *gapOccasionCancelRatioReportConfig*:2> if *gapOccasionCancelRatioReportConfig* is set to *setup*:  | It should be *otherConfig*. | XR | xuhao@catt.cn |  |
| 5 | N | *UE-TimersAndConstantsRemoteUE* field descriptions***t300-RemoteUE***Indicates the timer value of T300 used by L2 U2N Remote UE. If the field is absent, the timer value indicated in t300 applies to L2 U2N Remote UE. The effective T300 value for the L2 U2N Remote UE, accounting for both the Uu and PC5 hop components,, is obtained by multiplying the base T300 timer value by the Hop Count. For a single-hop scenario involving one Relay UE, the Hop Count is 1. For multi-hop scenarios involving two or three Relay UEs, the Hop Count is 2 or 3, respectively.***t319-RemoteUE***Indicates the timer value of T319 used by L2 U2N Remote UE. If the field is absent, the timer value indicated in t319 applies to L2 U2N Remote UE. The effective T319 value for the L2 U2N Remote UE, accounting for both the Uu and PC5 hop components,, is obtained by multiplying the base T319 timer value by the Hop Count. For a single-hop scenario involving one Relay UE, the Hop Count is 1. For multi-hop scenarios involving two or three Relay UEs, the Hop Count is 2 or 3, respectively. | Redundant punctuation should be deleted. | SLRelay | xuhao@catt.cn |  |
| 6 | N | ***rach-Less***This field is set if the successful HO report is trigged by RACH-less LTM cell switch. | Typo, it should be “triggered” | SONMDT | tangxun@catt.cn |  |
| 7 | N | 3> set *pSCellId* to the the global cell identity and tracking area code, if available, and otherwise the physical cell identity and carrier frequency of the source PSCell (in case of PSCell change) or PSCell (in case of no PSCell change); | Duplicate “the” | SONMDT | tangxun@catt.cn |  |
| 8 | N | 3> set the *measResultListNR* in *measResultNeighCells* to include all the available measurement quantities of the best measured cells, other than the source PCell (in case HO failure) or PCell (in case RLF), and other than the source PSCell (in case of PSCell change) or PSCell (in case of no PSCell change) if the UE was configured with *condExecutionCond* and *condExecutionCondPSCell* and if the UE supports RLF-Report for conditional handover with candidate SCG ordered such that the cell with highest SS/PBCH block RSRP is listed first if SS/PBCH block RSRP measurement results are available, otherwise the cell with highest SS/PBCH block RSRQ is listed first if SS/PBCH block RSRQ measurement results are available, otherwise the cell with highest SS/PBCH block SINR is listed first, based on the available SS/PBCH block based measurements collected up to the moment the UE detected failure; | A comma should be added between “SCG” and “ordered”. | SONMDT | tangxun@catt.cn |  |
| 9 | N | ***fulfilledConfigWhenChoOnly***This field indicates if the execution conditions for conditional handover or conditional PSCell change/addition was fulfilled at the time of receiving a complementary conditional reconfiguration i.e., a conditional reconfiguration for a candidate PCell for which atleast one CHO with conditional SCG is already configured. | A space should be added between “at” and “least”. | SONMDT | tangxun@catt.cn |  |
| 10 | N | 1> if configured to provide its preference on time offset for LP-WUS monitoring of a cell group:2> if [the UE has a preference on time offset for LP-WUS monitoring of the cell group and] the UE did not transmit a *UEAssistanceInformation* message with *lpwus-OffsetPreference* for the cell group since it was configured to provide its preference on time offset for LP-WUS monitoring of the cell group for power saving; or | Typo “[“ and “]” | LPWUS | rama.kumar@huawei.com |  |
| 11 | Y |  lpwus-OverlaidSeqRoots in “lpwus-MvalueAndSeqConfigFR1-r19” and “lpwus-MvalueAndSeqConfigFR2-r19” | Missing “-r19” for “lpwus-OverlaidSeqRoots” in 3 places | LPWUS | rama.kumar@huawei.com |  |
| 12 | Y | lpwus-LoFrameOffsetList-r19, lpwus-MoNumPerLo-r19, lpwus-PoNumPerLo-r19 | lpwus-LO-FrameOffsetList-r19, lpwus-MO-NumPerLO-r19, lpwus-PO-NumPerLO-r19 | LPWUS | rama.kumar@huawei.com |  |
| 13 | Y | lpss-StartSymbol-r19 SEQUENCE { startSymbol1-r19 INTEGER (0..10),  startSymbol2-r19 INTEGER (0..10) OPTIONAL  } OPTIONAL, -- Need R | Need code is missing TODO: this should be Class 1 | LPWUS | rama.kumar@huawei.com |  |
| 14 | Y | lp-SubgroupConfig-r19 LP-SubgroupConfig-r19 | Better to rename to “lpwus-SubgroupConfig” to align with others | LPWUS | rama.kumar@huawei.com |  |
| 15 | Y | CSI-LogMeasInfo-r19 ::= SEQUENCE { refCSI-LoggedMeasurementConfigId-r19 CSI-LoggedMeasurementConfigId-r19, csi-RS-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofNZP-CSI-RS-Resources)) OF CSI-RS-MeasResult-r19 OPTIONAL, ssb-MeasResultList-r19 SEQUENCE (SIZE (1..maxNrofSSBs-r16)) OF SSB-MeasResult-r19 OPTIONAL, timeGap-r19 ENUMERATED {true} OPTIONAL, ...} | The extension marker should be in the next row. | AIML | tangxun@catt.cn |  |
| 16 | N | ***timeGap***Indicates that there was a time gap, longer than the logging periodicity, between the reported measurement results in this instance of *CSI-LogMeasInfoList* and the previous instance of *CSI-LogMeasInfoList* with the same *refCSI-LoggedMeasurementConfigId* for the same serving cell. | Should be *csi-LogMeasInfoList*. | AIML | tangxun@catt.cn |  |
| 17 | N | Missing italics 5.2.2.3.1 : 4> if the UE is in RRC\_CONNECTED while T311 is running:5> if the SIB1 acquisition is upon receiving an indication that the system information has changed or upon receiving a PWS notification:6> acquire the *SIB1* (see clause 5.2.2.2.2)*,* which is scheduled as specified in TS 38.213 [13];Just to NOTE that we don’t need to have italics for “OD-SIB1 acquisition” as we don’t have “OD-SIB1” ASN.1 definition. This is correctly implemented in the CR. So no worries. | *SIB1* | NES | Jarkko.t.koskela@nokia.com |  |
| 18 | N | In 5.2.2.3.1 in the note at the end of section first “SIB1” is missing italics. Second SIB1 in the note is regarding “SIB1 request procedure”. That does not need to be changes I guess as it is name of procedure and not ASN.1. But up to rapporteur to decide on that (like everything else). | *SIB1* | NES | Jarkko.t.koskela@nokia.com |  |
| 19 | N | In 5.2.2.3.3x multiple instances of SIB1 don’t have italics – Note that not all need those possibly when we refer to “SIB1 request procedure” but we need use italics when we refer to SIB1 message e.g. in case “acquire SIB1 message” | *SIB1* | NES | Jarkko.t.koskela@nokia.com |  |
| 20 | N | ***t-RxDiscard***Timer for the AMD RLC PDU(s) discard at the Rx side of the RLC entity, see TS 38.322 [4]. For the value of the IE *T-RxDiscard*, value *ms10* means 10 milliseconds, value *ms20* means 20 milliseconds, and so on. The value of the field should not be lower than that configured by the field *t-Reassembly* or *t-ReassemblyExt*. | *T-RxDiscard* should be *t-RxDiscard* | XR | zhangyujian@xiaomi.com |  |
| 21 | N | ***sbfd-RSRP-ThresholdRO-TypeUsage***Indicate how the SBFD aware UE chooses RACH occasion type using sbfd-*RSRP*-ThresholdRO-Type for the initial PRACH preamble transmissions and is always configured together with *sbfd-RSRP-ThresholdRO-Type.* With value *above*, the SBFD aware UE chooses the second PRACH occasions if the measured downlink pathloss reference RSRP is above *sbfd-RSRP-ThresholdRO-Type* and chooses the first PRACH occasions otherwise. With value *below*, the SBFD aware UE chooses the second PRACH occasions if the measured downlink pathloss reference RSRP is below *sbfd-RSRP-ThresholdRO-Type* and chooses the first PRACH occasions otherwise. If all of *sbfd-RO-Type*, *sbfd-RSRP-ThresholdRO-Type* and *sbfd-RSRP-ThresholdRO-TypeUsage* are absent, it is up to UE implementation to determine the RO type. | The highlighted sbfd-*RSRP*-ThresholdRO-Type should be *italic*. | SBFD | zhangyujian@xiaomi.com |  |
| 22 | N | ***sbfd-Config2-Transmission***Indicates that the PUCCH and PUSCH transmissions can be in SBFD symbols and non-SBFD symbols in different slots in a given UL BWP (see TS 38.213 [13], clause 11 and TS 38.214 [19], clause 6).If not enabled, the restriction that the transmissions are restricted to SBFD symbols only or non-SBFD symbols only is applied for PUCCH and PUSCH transmissions in the given UL BWP. | Space is needed before “If not enabled”. | SBFD | zhangyujian@xiaomi.com |  |
| 23 | N | ***cli-RSSI-PeriodicityAndOffset*** Indicates the periodicity and slot offset for this CLI-RSSI-MeasResource*,* with the same value range as CSI-ResourcePeriodicityAndOffset.***qcl-InfoPeriodic-CLI-RSSI-MeasResource***Indicates a reference to one TCI-State in TCI-States for providing the QCL source and QCL type for a target periodic CLI-RSSI-MeasResource ***startSymbol***Indicates the starting symbol of the CLI-RSSI-MeasurementResource within a slot | Highlighted part should be in italic.Period is missing at the end of description for *qcl-InfoPeriodic-CLI-RSSI-MeasResource* and *startSymbol*. | SBFD | zhangyujian@xiaomi.com |  |
| 24 | N | ***symbolType***Configures the valid symbol type for PUCCH carrying P-CSI or SP-CSI when the transmissions are restricted to SBFD symbols only or non-SBFD symbols only for the UL BWP. The network does not configure this field if the transmissions can be in SBFD symbols and non-SBFD symbols in different slots for the UL BWP. (see TS 38.214 [19], clause 7.2) | Move the period to the end as in “UL BWP (see TS 38.214 [19], clause 7.2).” | SBFD | zhangyujian@xiaomi.com |  |
| 25 | N | 2> if the UE is configured in this *RRCReconfiguration* message to provide location information for assisted SMTC configuration in RRC\_CONNECTED state:3> include *referenceLocationReport*;  | It seems that the UE provides its location, but actually the UE provides the reference location. Suggest using ‘provide reference location information’ instead of ‘provide location information’.  | NTN | lixiaolong1@xiaomi.com |  |
| 26 | N | 1> if the received *otherConfig* includes the *assisted-SSB-MTC-Config*:2> if the *assisted-SSB-MTC-Config* is set to *setup*:3> consider itself to be configured to provide location information for assisted SMTC configuration in RRC\_CONNECTED state in accordance with 5.7.4;2> else:3> consider itself not to be configured to provide location information for assisted SMTC configuration in RRC\_CONNECTED state. | It seems that the UE provides its location, but actually the UE provides the reference location. Suggest using ‘provide reference location information’ instead of ‘provide location information’.  | NTN | lixiaolong1@xiaomi.com |  |
| 27 | N | 1> if configured to provide location information for assisted SMTC configuration in RRC\_CONNECTED state:2> if the current closest reference locations are different from the ones indicated in the last transmission including *referenceLocationReport*:3> initiate transmission of the *UEAssistanceInformation* message in accordance with 5.7.4.3 to provide location information for assisted SMTC configuration; | It seems that the UE provides its location, but actually the UE provides the reference location. Suggest using ‘provide reference location information’ instead of ‘provide location information’.  | NTN | lixiaolong1@xiaomi.com |  |
| 28 | N | 1> if transmission of the *UEAssistanceInformation* message is initiated to provide location information for assisted SMTC configuration in RRC\_CONNECTED state according to 5.7.4.2;2> include the *referenceLocationReport* with a number of closest reference locations to the current UE’s position determined by *closestLocsToReport*; | It seems that the UE provides its location, but actually the UE provides the reference location. Suggest using ‘provide reference location information’ instead of ‘provide location information’.  | NTN | lixiaolong1@xiaomi.com |  |
| 29 | N | 1> if the value of *ltm-NoSecurityChangeID* contained in the *LTM-Candidate* IE in *ltm-Config* or *ltm-ConfigNRDC* indicated by lower layers or for the selected cell in accordance with 5.3.7.3 is not equal to the value of *ltm-ServingCellNoSecurityChange* within *VarLTM-ServingCellNoSecurityChange*: | Based on the ASN.1 structure of *VarLTM-ServingCellNoSecurityChange****VarLTM-ServingCellNoSecurityChange* UE variable**-- ASN1START-- TAG-VARLTM-SEVINGCELLNOSECURITYCHANGE-STARTVarLTM-ServingCellNoSecurityChange-r19 ::= SEQUENCE { ltm-ServingCellNoSecurityChangeID-r19 INTEGER (1..maxNrofLTM-Configs-plus1-r18) OPTIONAL, ltm-SK-Counters-r19 SEQUENCE (SIZE (1..maxSecurityCellSet-r18)) OF SK-CounterConfigLTM-r19 OPTIONAL}-- TAG-VARLTM-SEVINGCELLNOSECURITYCHANGE-STOP-- ASN1STOPIt should be *ltm-ServingCellNoSecurityChangeID*. | MOB | xiongyi3@xiaomi.com |  |
| 30 | N | 2> else if the LTM cell switch is triggered on the SCG:3> consider the first *sk-Counter* value in the *ltm-SK-Counters* within the *VarLTM-ServingCellNoSecurityChange* associated to the the field *ltm-NoSecurityChangeID* as the selected *sk-Counter* value, and update the secondary key by performing security key update procedure as specified in 5.3.5.7;3> remove the selected *sk-Counter* value from the *ltm-SK-Counters* within the *VarLTM-ServingCellNoSecurityChange*; | The Font Color of ”*ltm-SK-Counters* ” shall be black. | MOB | xiongyi3@xiaomi.com |  |
| 31 | N | 1> else (LTM cell switch triggered upon cell selection performed while timer T311 was running or upon the fulfilment of LTM cell switch execution conditions (as specified in clause 5.3.5.18.x):2> apply the *RRCReconfiguration* message in *ltm-CandidateConfig* within *LTM-Candidate* IE in *ltm-Config* related to the LTM candidate configuration identity for the selected cell (i.e., in accordance with 5.3.5.18.x or 5.3.7.3) according to clause 5.3.5.3; | The Font Color of “upon the fulfilment of LTM cell switch execution conditions (as specified in clause 5.3.5.18.x” shall be black.And there is no Underline for “upon the fulfilment of LTM cell switch execution conditions (as specified in clause 5.3.5.18.x” | MOB | xiongyi3@xiaomi.com |  |
| 32 | N | 5.3.5.18.z LTM sk-Counter configuration releseThe UE shall:1> for each *ltm-NoSecurityChangeID* value included in the *ltm-SK-CounterConfigToRemoveList* that is part of the current *ltm-SK-Counters* in *VarLTM-ServingCellNoSecurityChange*:2> remove the entry with the matching *ltm-NoSecurityChangeID* from the *ltm-SK-Counters* in *VarLTM-ServingCellNoSecurityChange.* | Correction 1:A typo: “relese” -> “release”Correction2:Based on the ASN.1 structure of *LTM-ConfigNRDC-r19*LTM-ConfigNRDC-r19 ::= SEQUENCE { ltm-ConfigurationSCG-r19 LTM-Config-r18 OPTIONAL, -- Need M ltm-SK-CounterConfigToAddModList-r19 SEQUENCE (SIZE (1..maxSecurityCellSet-r18)) OF SK-CounterConfigLTM-r19 OPTIONAL, -- Need N ltm-SK-CounterConfigToReleaseList-r19 SEQUENCE (SIZE (1..maxSecurityCellSet-r18)) OF LTM-NoSecurityChangeId-r19 OPTIONAL, -- Need N ...*ltm-SK-CounterConfigToRemoveList* should be *ltm-SK-CounterConfigToReleaseList*. | MOB | xiongyi3@xiaomi.com |  |
| 33 | *N* | NOTE 2: It is up to UE implementation to use the cell/tracking area list and/or the Target Service Area in the USD or the ISA(s) in *SIBXX* to avoid acquiring the MCCH when the UE is outside the MBS service area of the MBS broadcast service. | Target Service Area is provided in the Service Announcement as one of the following Cell ID, TAI or geographical definition (ISA) (refer to SP-250930). The AF generates this input information (single/unique information source) which is the same regardless it is delivered either via USD or SIB to the UE. For the purpose of geofencing in NTN, the geographical definition will often be used. Provided Target Service Area is a general concept, the existing NOTE in the running CR needs to be ammended to maintain clarity in the specification and compatibility to existing TN behavior.Target Service Area is a general concept which include Cell ID, TAI and geographical description so the text referring especifically to cell/TAI list can be removed.NOTE 2: It is up to UE implementation to use the Target Service Area in the USD or the ISA(s) in *SIBXX* to avoid acquiring the MCCH when the UE is outside the MBS service area of the MBS broadcast service. | NTN | Ignacio.pascual.pelayo@ericsson.com |  |
| 34 | N | Clause 5.5a.1.3:1> store the received *AreaConfigurationNTN-List,* if included, in *VarLogMeasConfig*;New Text:1> store the received *areaConfigurationNTN-List,* if included, in *VarLogMeasConfig*; | Field name should start with lower case. | SONMDT | mani.thyagarajan@nokia.com |  |
| 35 | N | Clause 5.5a.3.2:1> if *AreaConfigurationNTN-List* is included in *VarLogMeasConfig*:2> if location information is available, and is outside of all areas indicated by *AreaConfigurationNTN-List*; orNew Text:1> if *areaConfigurationNTN-List* is included in *VarLogMeasConfig*:2> if location information is available, and is outside of all areas indicated by *areaConfigurationNTN-List*; or | Field name should start with lower case. | SONMDT | mani.thyagarajan@nokia.com |  |
| 36 | v | Clause 3.1 **Applicable AI/ML configuration:** Configuration according to which anAI/ML functionality is determined to be applicable by the UE, as defined in TS 38.300 [2]. | Definition not be referenced in the whole specification.Can be removed? | AIML | kimba@vivo.com |  |
| 37 | v | Clause 4.2.2- SRBx is for RRC messages which include logged measurement information for network-side data collection, all using DCCH logical channel. SRBx has a lower priority than SRB1 and can only be configured by the network after AS security activation. | Network-side data collection is a general description. Logged MDT can be treated as network-side data collection. It is better to add “for AI/ML” here.“- SRBx is for RRC messages which include logged measurement information for network-side data collection for AI/ML, all using DCCH logical channel. SRBx has a lower priority than SRB1 and can only be configured by the network after AS security activation.” | AIML | kimba@vivo.com |  |
| 38 | v | Clause 5.3.5.36> if the *applicabilityStatus* is set to inapplicable | “inapplicable” Should be italic | AIML | kimba@vivo.com |  |
| 39 | v | Clause 5.3.5.36> if the *applicabilityStatus* is set to inapplicable: | “inapplicable” Should be italic | AIML | kimba@vivo.com |  |
| 40 | v | Clause 5.3.136> if the *applicabilityStatus* is set to inapplicable: | “inapplicable” Should be italic | AIML | kimba@vivo.com |  |
| 41 | v | Clause 5.7.47> if the *applicabilityStatus* is set to inapplicable: | “inapplicable” Should be italic | AIML | kimba@vivo.com |  |
| 42 | v | Clause 6.2.2***lowPowerState***It is set to 'true' if the UE has entered a low power state. | :”'true'” Should be italic | AIML | kimba@vivo.com |  |
| 43 | v | Clause 6.2.2CSI-LogMeasInfoCell-r19 ::= SEQUENCE { cellId-r19 CHOICE { cellGlobalId-r19 CGI-Info-Logging-r16, pci-arfcn-r19 PCI-ARFCN-NR-r16 }, csi-LogMeasInfoList-r19 SEQUENCE (SIZE (1..maxLogCSI-MeasReport-r19)) OF CSI-LogMeasInfo-r19, ...} | pci-arfcn-r19“a” should Capital ltter | AIML | kimba@vivo.com |  |
| 44 | V | Clause 6.3.2***releaseConfigurationPreference***Indicates the UE's preference to release the configuration associated to *applicabilityReportConfigId* (e.g. due to model unavailability), if the *applicabilityStatus* is set to 'inapplicable'. | “inapplicable” Should be italic | AIML | kimba@vivo.com |  |
| 44 | N | Clause 5.3.121> if the indicated serving cell is referred to by *pucch-Cell* included in *CSI-ReportUE-IBR* of an associated *CSI-ReportConfig*;2> release *pucch-Resource* indicated in the associated *CSI-ReportUE-IBR*; | “if” statement should end in : instead of ; | MIMO | andrew.lappalainen@nokia.com |  |
| 45 | Y | CodebookConfig-r19 ::= SEQUENCE { codebookType CHOICE { type1 CHOICE { typeI-SinglePanel-r19  ... typeI-MultiPanel-r19  ...  } type2 CHOICE { etypeII-r19  ... typeII-FePortSelection-r19  ... typeII-Doppler-r19  ... } }} | There seems to be unnecessary space in front of all the codebook configs (e.g. comparing them to the -r18 codebooks). They could be shifted to left. | MIMO | andrew.lappalainen@nokia.com |  |
| 46 | Y | resourcesForChannelCJTC-r19 SEQUENCE { resourceSet2CJTC-r19 …, resourceSet3CJTC-r19 …,  resourceSet4CJTC-r19 … }  mr-SelectedResources-r19 SEQUENCE { firstSelectedResource-r19 … secondSelectedResource-r19 … } | There seems to be unnecessary space in front of all these fields. They could be shifted left | MIMO | andrew.lappalainen@nokia.com |  |
| 47 | N |

|  |  |
| --- | --- |
| Conditional Presence | Explanation |
| *CJTC* | This field is absent if resourcesForChannel2 or resourcesForChannelTDCP is configured. It is optionally present, Need R, otherwise. |

Conditional presence table for *CSI-AperiodicTriggerStateList* | *resourcesForChannel2* and *resourcesForChannelTDCP* should be in italics  | MIMO | andrew.lappalainen@nokia.com |  |
| 48 | Y | reportQuantity-r19 CHOICE { cjtc-Dd-r19 NULL, cjtc-F-r19 NULL, cjtc-P-r19 NULL, cjtc-Dd-F-r19 NULL }  | There seems to be unnecessary space in front of all these fields. They could be shifted left | MIMO | andrew.lappalainen@nokia.com |  |
| 49 | Y | CSI-ReportUE-IBR-r19<rest of config omitted> | The spacing for a lot of the fields within *CSI-ReportUE-IBR* is too far to the right or not aligned with one another (e.g. subfields of *pusch-ResourceOfModeB-r19* are not aligned, and subfields of *pucch-Resource-r19* are not aligned). Fields should be properly aligned. | MIMO | andrew.lappalainen@nokia.com |  |
| 50 | Y |  minimumPucch-PuschOffset-r19 ENUMERATED { symb0, symb1, symb2, symb4, symb8, symb16, symb32, symb64, symb128, symb256, symb512} | Redundant space between “{ symb0” | MIMO | andrew.lappalainen@nokia.com |  |
| 51 | Y |  nrofReportedRS-UE-IBR-r19 ENUMERATED {n1, n2, n3, n4}, tci-ServCellIndex-r19 ServCellIndex OPTIONAL, -- Need R  | tci-ServCellIndex-r19 should be on a new line  | MIMO | andrew.lappalainen@nokia.com |  |
| 52 | N | ***minimumPucch-PuschOffset***Indicates the time offset in number of symbols for determining available transmission occasion of PUSCH in Mode-B from the PUCCH. Value *symb0* corresponds to 0, value *symb1* corresponds to 1 and so on. | To align with notation used elsewhere, “Mode-B” should be “mode-B”. Besides, it would be clearer to say: “…occasion of PUSCH from the PUCCH for mode-B UE initiated CSI reporting”. | MIMO | andrew.lappalainen@nokia.com |  |
| 53 | Y | additionalOneSlotOffsetDoppler-r19 CHOICE { resourceGroup4 BIT STRING(SIZE(4)), resourceGroup8 BIT STRING(SIZE(8)), resourceGroup12 BIT STRING(SIZE(12)) } OPTIONAL -- Need R | Fields are missing -r19 suffix; should be*resourceGroup4-r19* *resourceGroup8-r19* *resourceGroup12-r19*  | MIMO | andrew.lappalainen@nokia.com |  |
| 54 | N | ***tag2***This field is used to indicate the second TAG information for the serving cell, it is optionally configured in a serving cell if *coresetPoolIndex* for a BWP is configured with more than one valueor if *twoTA-Without-MultiDCI-MultiTRP* is configured for a BWP. | These are different sentences. Should be “… for serving cell. It is optionally…”(Note: this also needs correcting in Rel-18 of TS 38.331.) | MIMO | andrew.lappalainen@nokia.com |  |
| 55 | N | ***fourPortSRS-3Tx***Indicates whether port 1003 is disabled for all SRS resources in the SRS resource set with *usage* set to *codebook* or *antennaSwitching*, or whether 3Tx transmission is enabled for a configured SRS resource set with *usage* set to *nonCodebook*. This field can only be configured if *nrofSRS-Ports* for each SRS resources in the SRS resource set is set to *ports4*. | “SRS resource” should be singular, not plural | MIMO | andrew.lappalainen@nokia.com |  |
| 56 | N | ***srs-PortGrouping***If configured, it indicates that SRS port grouping is enabled. This field can be configured only if *reportQuantity* is set to *cri-RI-CQI* and the *usage* of the SRS resource set is set to *antennaSwitching.* | “If configured” is redundant. Just say “Indicates that SRS port grouping is enabled.” | MIMO | andrew.lappalainen@nokia.com |  |
| 57 | N | ***pathlossOffset***Indicates the pathloss offset applied to the UL only TCI or joint TCI state. Value dB-12 corresponds to -12 dB, dB-8 corresponds to -8 dB and so on. | “dB-12” and “dB-8” should be in italics | MIMO | andrew.lappalainen@nokia.com |  |
| 58 |  |  |  |  |  |  |
| 59 |  |  |  |  |  |  |
| 60 |  |  |  |  |  |  |
| 61 |  |  |  |  |  |  |
| 62 |  |  |  |  |  |  |
| 63 |  |  |  |  |  |  |
| 64 |  |  |  |  |  |  |
| 65 |  |  |  |  |  |  |
| 66 |  |  |  |  |  |  |
| 67 |  |  |  |  |  |  |
| 68 |  |  |  |  |  |  |
| 69 |  |  |  |  |  |  |
| 70 |  |  |  |  |  |  |
| 71 |  |  |  |  |  |  |
| 72 |  |  |  |  |  |  |
| 73 |  |  |  |  |  |  |
| 74 |  |  |  |  |  |  |
| 75 |  |  |  |  |  |  |
| 76 |  |  |  |  |  |  |
| 77 |  |  |  |  |  |  |
| 78 |  |  |  |  |  |  |
| 79 |  |  |  |  |  |  |
| 80 |  |  |  |  |  |  |
| 81 |  |  |  |  |  |  |
| 82 |  |  |  |  |  |  |
| 83 |  |  |  |  |  |  |
| 84 |  |  |  |  |  |  |
| 85 |  |  |  |  |  |  |
| 86 |  |  |  |  |  |  |
| 87 |  |  |  |  |  |  |
| 87 |  |  |  |  |  |  |
| 88 |  |  |  |  |  |  |
| 89 |  |  |  |  |  |  |
| 90 |  |  |  |  |  |  |
| 91 |  |  |  |  |  |  |
| 92 |  |  |  |  |  |  |
| 93 |  |  |  |  |  |  |
| 94 |  |  |  |  |  |  |
| 95 |  |  |  |  |  |  |
| 96 |  |  |  |  |  |  |
| 97 |  |  |  |  |  |  |
| 98 |  |  |  |  |  |  |
| 99 |  |  |  |  |  |  |
| 100 |  |  |  |  |  |  |
| 101 |  |  |  |  |  |  |
| 102 |  |  |  |  |  |  |
| 103 |  |  |  |  |  |  |
| 104 |  |  |  |  |  |  |
| 105 |  |  |  |  |  |  |
| 106 |  |  |  |  |  |  |
| 107 |  |  |  |  |  |  |
| 108 |  |  |  |  |  |  |
| 109 |  |  |  |  |  |  |
| 110 |  |  |  |  |  |  |
| 111 |  |  |  |  |  |  |
| 112 |  |  |  |  |  |  |
| 113 |  |  |  |  |  |  |
| 114 |  |  |  |  |  |  |
| 115 |  |  |  |  |  |  |
| 116 |  |  |  |  |  |  |
| 117 |  |  |  |  |  |  |
| 118 |  |  |  |  |  |  |
| 119 |  |  |  |  |  |  |
| 120 |  |  |  |  |  |  |
| 121 |  |  |  |  |  |  |
| 122 |  |  |  |  |  |  |
| 123 |  |  |  |  |  |  |
| 124 |  |  |  |  |  |  |
| 125 |  |  |  |  |  |  |
| 126 |  |  |  |  |  |  |
| 127 |  |  |  |  |  |  |
| 128 |  |  |  |  |  |  |