**3GPP TSG- Meeting #**

**, , Feb 17th - , 2025**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **x** | Radio Access Network | **x** | Core Network |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Capability updates for MC and RAN1 feature list | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Xiaomi | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_MC\_enh, NR\_MIMO\_evo\_DL\_UL, NR\_Mob\_enh2 | | | | |  | ***Date:*** | | | 2025-02-28 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | |  |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | 1. According to RAN1 agreement, the scheduling and co-scheduled cells can support using same/different SCS/carrier type, however, the co-scheduled cells should share the same SCS and carrier type. However, “same SCS/carrier type” used in current specification will lead to some misunderstanding on whether the same SCS and carrier type is used or the same SCS or same carrier type is used. 2. New MIMO capability implementation according to RAN1 feature list R1-2501388. 3. According to R1-2501390, some LTM capabilities are clarified the per band capability refers to the source band.   Impact Analysis:  Impacted 5G architecture options: NR SA, NR-DC, NG(EN-DC), NE-DC  Impacted functionality: MC, MIMO, LTM  Interoperability  If the network is implemented according to this CR and UE is not, UE will not be able to signal all the capability correctly and network may assume that UE does not support them and may not configure them. If UE implementation is not aligned with the additional clarifications, it can cause wrong intrepration of the capability signalling resulting in configuration failure of the features.  If the UE is implemented according to the CR and network is not, network will not be aware of the UE capability and may not configure the UE for these supported features. If network implementation is not aligned with the additional clarifications, it can cause wrong intrepration of the capability signalling resulting in configuration failure of the features. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Update *coScheduledCellSCS-r18* in MC enhancement indicates the co-scheduled cells have the same SCS and the same carrier type. 2. Add new MIMO capabilities according to R1-2501388. 3. Clarify the following per band capabilities refer to the source band:   ue-TA-Measurement-r18  ltm-BeamIndicationJointTCI-r18  ltm-BeamIndicationSeparateTCI-r18  rach-EarlyTA-Measurement-r18  ltm-MAC-CE-JointTCI-r18  ltm-MAC-CE-SeparateTCI-r18  ta-IndicationCellSwitch-r18 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | 1. UE cannot indicate *coScheduledCellSCS-r18* correctly to network. 2. UE cannot support new MIMO capabilities added in R1-2501388. 3. network cannot interpret correctly the LTM capabilities indicated by UE are supported by the source band | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.2.7.2, 4.2.7.4, 4.2.7.7, 4.2.7.8 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS/TR 38.331 5281 | | |
| ***affected:*** | |  | **x** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **x** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

1. ***Modified section***

# 4 UE radio access capability parameters

## 4.2 UE Capability Parameters

### 4.2.7 Physical layer parameters

#### 4.2.7.2 *BandNR parameters*

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***lowPAPR-DMRS-PUSCHwithoutPrecoding-r16***  Indicates whether the UE supports low PAPR DMRS for PUSCH without transform precoding. | Band | No | N/A | N/A |
| ***lowPAPR-DMRS-PUSCHwithPrecoding-r16***  Indicates whether the UE supports low PAPR DMRS for PUSCH with transform precoding and with pi/2 BPSK modulation. It is mandatory with capability signalling. UE indicates support of this feature shall indicate support of *pusch-HalfPi-BPSK*. | Band | Yes | N/A | N/A |
| ***ltm-BeamIndicationJointTCI-r18***  Indicates whether the UE supports unified TCI with joint DL/UL LTM TCI-state indication for LTM procedure, indicating and activating a single joint LTM TCI state in a cell switch command.  This capability comprises the following parameters:  - *maxNumberJointTCI-PerCell-r18* indicates the maximum number of configured joint LTM TCI state(s) per candidate cell  - *qcl-Resource-r18* indicates of the supported QCL source RS in the LTM TCI-state- configuration.  - *maxNumberJointTCI-AcrossCells-r18* indicates index *N* of the maximum number of configured joint DL LTM TCI state(s) across candidate cells. The maximum number of configured joint LTM TCI state(s) across candidate cells is *N*\*8, where *N*={1..128}.  - *maxNumberCells-r18* indicates the maximum number of configured cells for joint LTM TCI state(s).  A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17* and at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*.  For cross-band operation, this capability refers to the source band. | Band | No | N/A | N/A |
| ***ltm-BeamIndicationSeparateTCI-r18***  Indicates whether the UE supports unified TCI with separate DL/UL TCI-state indication for LTM procedure and indicating/activating a pair of UL/DL TCI-state in a cell switch command.  This capability comprises the following parameters:  - *maxNumberDL-TCI-PerCell-r18* indicates the maximum number of configured DL TCI state(s) per candidate cell.  - *maxNumberUL-TCI-PerCell-r18* indicates the maximum number of configured UL TCI state(s) per candidate cell.  - *qcl-Resource-r18* indicates the supported QCL source RS in the LTM TCI-state configuration.  - *maxNumberDL-TCI-AcrossCells-r18* indicates value *N* of the maximum number of configured separate DL LTM TCI state(s) across candidate cells. The maximum number of configured separate DL LTM TCI state(s) across candidate cells is *N*\*8, where *N*={1..128}.  - *maxNumberUL-TCI-AcrossCells-r18* indicates value *N* of the maximum number of configured separate UL LTM TCI state(s) across candidate cells. The maximum number of configured separate UL LTM TCI state(s) across candidate cells is *N*\*8, where *N*={1..64}.  - *maxNumberCells-r18*indicates the maximum number of configured cells for separate DL/UL LTM TCI states  A UE supporting this feature shall also indicate support of *unifiedSeparateTCI-r17* and at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*.  For cross-band operation, this capability refers to the source band. | Band | No | N/A | N/A |
| ***ltm-FastProcessingConfig-r18***  Indicates whether the UE supports fast processing of LTM candidate cell RRC configuration. This capability signalling comprises the following parameters:  - *maxNumberStoredConfigCells-r18* indicates the maximum number of serving cell(s) and candidate cell(s), including serving SpCell(s), serving SCell(s) in MCG and SCG, SpCell in LTM candidate configurations and Scell(s) in LTM candidate configurations for MCG and SCG, that UE can store the configurations.  - *maxNumberConfigs-r18* represents the maximum number of LTM candidate configuration for which the UE can perform early ASN.1 decoding and validity check, as described in TS 38.133 [5].  A UE supporting this capability shall also indicate support of *ltm-MAC-CE-JointTCI-r18* or *ltm-MAC-CE-SeparateTCI-r18*. UE shall set the capability values for *maxNumberStoredConfigCells-r18* and *maxNumberConfigs-r18* consistently for all bands. These capability values represent the maximum number across all the supported bands.  NOTE: The conditions for fast processing of an LTM candidate cell RRC configuration is defined in clause 6.3 in TS 38.133 [5]. | Band | No | N/A | N/A |
| ***ltm-MAC-CE-JointTCI-r18***  Indicates whether the UE supports MAC-CE activated joint LTM TCI states.  This capability comprises the following parameters:  - *qcl-Resource-r18* indicates the supported QCL source RS for MAC-CE activated DL/UL LTM TCI states configuration.  - *maxNumberJointTCI-PerCell-r18* indicates the maximum number of MAC-CE activated joint LTM TCI states per candidate cell.  - *maxNumberJointTCI-AcrossCells-r18* indicates the maximum number of MAC-CE activated joint LTM TCI states across candidate cells and serving cell TCI states across serving cells in the band.  A UE supporting this feature shall also indicate support of *ltm-BeamIndicationJointTCI-r18*.  NOTE: The maximum number of MAC-CE activated joint TCI states across all servings cells is limited by of *unifiedJointTCI-r17.*  For cross-band operation, this capability refers to the source band. | Band | No | N/A | N/A |
| ***ltm-MAC-CE-SeparateTCI-r18***  Indicates whether the UE supports MAC-CE activated DL/UL LTM TCI states.  This capability comprises the following parameters:  - *qcl-Resource-r18* indicates the supported QCL source RS for MAC-CE activated DL/UL LTM TCI states configuration.  - *maxNumberDL-TCI-PerCell-r18* indicates the maximum number of MAC-CE activated DL TCI states per candidate cell.  - *maxNumberUL-TCI-PerCell-r18* indicates the maximum number of MAC-CE activated UL TCI states per candidate cell.  - *maxNumberDL-TCI-AcrossCells-r18* indicates the maximum number of MAC-CE activated LTM DL TCI states across all candidate cells and serving cell DL TCI states across all serving cells.  - *maxNumberUL-TCI-AcrossCells-r18* indicates the maximum number of MAC-CE activated UL TCI states across all candidate cells and serving cell UL TCI states across all serving cells in the band.  A UE supporting this feature shall also indicate support of *ltm-BeamIndicationSeparateTCI-r18*.  The maximum number of MAC-CE activated DL/UL TCI states across all servings cells is limited by *unifiedSeparateTCI-r17.*  For cross-band operation, this capability refers to the source band. | Band | No | N/A | N/A |
| ***ltm-MCG-IntraFreq-r18***  Indicates whether the UE supports intra-frequency LTM for MCG with RACH as defined in TS 38.331 [9] and TS 38.321 [8] without NR-DC configured. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  UE supporting this feature shall also indicate support for *ltm-BeamIndicationJointTCI-r18* or *ltm-BeamIndicationSeparateTCI-r18*. | Band | No | N/A | N/A |
| ***ltm-SCG-IntraFreq-r18***  Indicates whether the UE supports intra-frequency LTM for SCG with RACH as defined in TS 38.331 [9] and TS 38.321 [8]. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  UE supporting this feature shall also indicate support for *ltm-BeamIndicationJointTCI-r18* or *ltm-BeamIndicationSeparateTCI-r18*. | Band | No | N/A | N/A |
| ***maxDurationDMRS-Bundling-r17***  Indicates whether the UE supports the maximum duration during which UE is able to maintain power consistency and phase continuity to support DM-RS bundling for PUSCH/PUCCH.  NOTE: DM-RS bundling is only applicable for UL transmissions with pi/2 BPSK, BPSK, and QPSK modulation orders for the corresponding physical channels. | Band | No | N/A | N/A |
| ***maxDynamicSlotRepetitionForSPS-Multicast-r17***  Indicates maximum number of dynamic slot-level repetitions for SPS group-common PDSCH for multicast. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE that indicates support of this feature shall indicate support of *sps-Multicast-r17*. | Band | No | N/A | N/A |
| ***max-HARQ-ProcessNumber-r17***  Indicates the maximal supported HARQ process numbers for UL and for DL respectively. For each value of *max-HARQ-ProcessNumber-r17*, value *u16d32* indicates the maximal supported HARQ process number is 16 for UL and 32 for DL, value *u32d16* indicates the maximal supported HARQ process number is 32 for UL and 16 for DL, value *u32d32* indicates the maximal supported HARQ process number is 32 for UL and 32 for DL. This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35]. | Band | No | N/A | N/A |
| ***maxMIMO-LayersForMulti-DCI-mTRP-r16***  Indicates the interpretation of *maxNumberMIMO-LayersPDSCH* for multi-DCI based mTRP. If this field is included, *maxNumberMIMO-LayersPDSCH* is interpreted as the maximum number of layers per PDSCH for multi-DCI multi-TRP operation.  If this field is not included, *maxNumberMIMO-LayersPDSCH* is interpreted as the maximum number of layers across two PDSCHs if having at least one RE overlapped, for multi-DCI multi-TRP operation. The UE that indicates support of this feature shall support *overlapPDSCHsFullyFreqTime-r16*.  NOTE 1: For data rate calculation in clause 4.1.2, if this feature is indicated, each multi-DCI based multi-TRP CC is counted two times toward J. | Band | No | N/A | N/A |
| ***maxModulationOrderForMulticast-r17***  Defines the maximal modulation order for multicast PDSCH in RRC\_CONNECTED. If not reported, UE supports the same modulation order as unicast.  - For FR1, up to 1024QAM is supported.  - For FR2, up to 256QAM is supported.  A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.  NOTE: A UE shall support the corresponding mandatory maximum modulation for unicast. | Band | No | N/A | N/A |
| ***maxNumberActivatedTCI-States-r16***  Indicates maximum number of activated TCI states. This capability signalling includes the following:  - *maxNumberPerCORESET-Pool-r16* indicates maximal number of activated TCI states per *CORESETPoolIndex* per BWP per CC including data and control  - *maxTotalNumberAcrossCORESET-Pool-r16* indicates maximal total number of activated TCI states across *CORESETPoolIndex* per BWP per CC including data and control  The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16*. | Band | No | N/A | N/A |
| ***maxNumberCSI-RS-BFD***  Indicates maximal number of CSI-RS resources across all CCs, and across MCG and SCG in case of NR-DC, for UE to monitor PDCCH quality. In this release, the maximum value that can be signalled is 16. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. It is mandatory with capability signalling for FR2 and optional for FR1. | Band | CY | N/A | N/A |
| ***maxNumberCSI-RS-SSB-CBD***  Defines maximal number of different CSI-RS [and/or SSB] resources across all CCs, and across MCG and SCG in case of NR-DC, for new beam identifications. In this release, the maximum value that can be signalled is 128. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. It is mandatory with capability signalling for FR2 and optional for FR1. The UE is mandated to report at least 32 for FR2. | Band | CY | N/A | N/A |
| ***maxNumberG-CS-RNTI-r17***  Defines maximum number of G-CS-RNTIs for SPS multicast. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *sps-Multicast-r17*. | Band | No | N/A | N/A |
| ***maxNumberG-RNTI-r17***  Defines maximum number of G-RNTIs for multicast in RRC\_CONNECTED. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.  For the UE indicating support of *multicastInactive-r18*, this capability is also applicable to multicast reception in RRC\_INACTIVE, as specified in TS 38.331 [9]. | Band | No | N/A | N/A |
| ***maxNumber-NGSO-SatellitesPerCarrier-r17***  Indicates the number of target NGSO satellites the UE can monitor per carrier. For serving carrier, the number of target NGSO satellites also includes the serving satellite. If this field is not included, the number of target satellites UE can monitor per carrier is 2. The value shall be larger than or equal to the reported value on *maxNumber-NGSO-SatellitesWithinOneSMTC-r17*. | Band | No | FDD only | FR1 only |
| ***maxNumber-NGSO-SatellitesWithinOneSMTC-r17***  Indicates the number of different NGSO satellites for target cells that the UE supports of simultaneous measurements within a SMTC with value n1 corresponds to 1, value n2 corresponds to 2 and so on. | Band | No | FDD only | FR1 only |
| ***maxNumberNonGroupBeamReporting***  Defines support of non-group based RSRP reporting using N\_max RSRP values reported. | Band | Yes | N/A | N/A |
| ***maxNumberPUSCH-TypeA-Repetition-r17***  Indicates whether the UE supports the increased maximum number of PUSCH Type A repetitions to 32.  A UE that indicates support of this feature shall support *type1-PUSCH-RepetitionMultiSlots, type2-PUSCH-RepetitionMultiSlots,* *pusch-RepetitionTypeA-r16* or *pusch-RepetitionTypeA-v16c0.*  NOTE: For DG PUSCH, the number of repetitions is indicated in a TDRA list. A row index of the TDRA list is indicated by a DCI. For Type 1 CG PUSCH, the number of repetitions is indicated by *repK-v1710*. For Type 2 CG PUSCH, the number of repetitions is indicated in a TDRA list or by *repK-v1710*. | Band | No | N/A | N/A |
| ***maxNumberRxBeam, maxNumberRxBeam-v1720***  Defines whether UE supports receive beamforming switching using NZP CSI-RS resource. UE shall indicate a single value for the preferred number of NZP CSI-RS resource repetitions per CSI-RS resource set. Support of Rx beam switching is mandatory for FR2. | Band | CY | N/A | N/A |
| ***maxNumberRxTxBeamSwitchDL,*** ***maxNumberRxTxBeamSwitchDL-v1710***  Defines the number of Tx and Rx beam changes UE can perform on this band within a slot. UE shall report one value per each subcarrier spacing supported by the UE. In this release, the number of Tx and Rx beam changes for scs-15kHz and scs-30kHz are not included. | Band | No | N/A | FR2 only |
| ***maxNumberSCellBFR-r16***  Defines the maximum number of SCells configured for SCell beam failure recovery simultaneously. The UE indicating support of this also indicates the capabilities of *maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD.* | Band | No | N/A | N/A |
| ***maxNumberSSB-BFD***  Defines maximal number of different SSBs across all CCs, and across MCG and SCG in case of NR-DC, for UE to monitor PDCCH quality. In this release, the maximum value that can be signalled is 16. If the UE includes the field in an FR1 band, it shall set the same value in all FR1 bands. If the UE includes the field in an FR2 band, it shall set the same value in all FR2 bands. The UE supports a total number of resources equal to the maximum of the FR1 and FR2 value, but no more than the FR1 value across all FR1 serving cells and no more than the FR2 value across all FR2 serving cells. It is mandatory with capability signalling for FR2 and optional for FR1. | Band | CY | N/A | N/A |
| ***maxOutputPowerATG-r18***  Indicates the maximum output power rating at maximum modulation order and full RB allocation as specified in clause 6.2J of TS 38.101-1 [2]. Value 1 indicates 23dBm, value 2 indicates 24dBm and so on. If present, the *ue-PowerClass* is not included, and default UE power class is not applicable. The UE indicating support of this feature shall also indicate support of *airToGroundNetwork-r18*. This field is only applicable for bands as specified for ATG in clause 5.2J of TS 38.101-1 [2]. | Band | CY | N/A | FR1 only |
| ***maxPeriodicityCMR-r18***  Indicates the maximum periodicity of periodic CSI-RS (in slots) UE can handle for Type-II-Doppler CSI report.  The UE supporting this feature shall also indicate support of at least one of *eType2Doppler-r18* and *feType2Doppler-r18*.  NOTE: A UE that supports at least one of *eType2Doppler-r18* and *feType2Doppler-r18* must signal this feature. | Band | CY | N/A | N/A |
| ***maxUplinkDutyCycle-PC2-FR1***  Indicates the maximum percentage of symbols during a certain evaluation period that can be scheduled for uplink transmission to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. This field is applicable for FR1 power class 2 UE and also applicable for FR1 power class 1.5 UE as specified in clause 6.2.1 of TS 38.101-1 [2]. If the field and *maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16* are both absent, 50% shall be applied as the upper limit of the UL duty cycle for power class 2. Value n60 corresponds to 60%, value n70 corresponds to 70% and so on. This capability is not applicable to IAB-MT. | Band | No | N/A | FR1 only |
| ***maxUplinkDutyCycle-FR2***  Indicates the maximum percentage of symbols during 1s that can be scheduled for uplink transmission at the UE maximum transmission power, so as to ensure compliance with applicable electromagnetic power density exposure requirements provided by regulatory bodies. This field is applicable for all power classes UE in FR2 as specified in TS 38.101-2 [3]. Value n15 corresponds to 15%, value n20 corresponds to 20% and so on. If the field is absent or the percentage of uplink symbols transmitted within any 1s evaluation period is larger than *maxUplinkDutyCycle-FR2*, the UE behaviour is specified in TS 38.101-2 [3]. This capability is not applicable to IAB-MT. | Band | No | N/A | FR2 only |
| ***maxUplinkDutyCycle-PC1dot5-MPE-FR1-r16***  Indicates the maximum percentage of symbols during a certain evaluation period that can be scheduled for uplink transmission to ensure compliance with applicable electromagnetic energy absorption requirements provided by regulatory bodies. This field is only applicable for FR1 power class 1.5 UE as specified in clause 6.2.1 of TS 38.101-1 [2]. If the field and *maxUplinkDutyCycle-PC2-FR1* are both absent, 25% shall be applied as the upper limit of the UL duty cycle for power class 1.5. | Band | No | N/A | FR1 only |
| ***measEnhCAInterFreqFR2-r18***  Indicates whether the UE supports the RRM requirement for intra-band CA operation in connected mode to support FR2 high speed up to 350 km/h, as specified in TS 38.133 [5] and the RRM requirement for enhanced inter-frequency measurements in connected mode to support FR2 high speed up to 350 km/h, as specified in TS 38.133 [5].  A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*. | Band | No | N/A | FR2 only |
| ***measValidationReportEMR-r18***  Indicates whether the UE supports measurement validation and report based on EMR measurement during connection setup/resume for fast CA/DC setup. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  A UE supporting this feature shall also indicate support of *idleInactiveNR-MeasReport-r16* or *idleInactiveEUTRA-MeasReport-r16*. | Band | No | N/A | N/A |
| ***measValidationReportReselectionMeasurements-r18***  Indicates whether the UE supports measurement validation based on reselection measurements during IDLE/INACTIVE state and reporting for fast CA/DC setup. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. | Band | No | N/A | N/A |
| ***mixCodeBookSpatialAdaptation-r18***  Indicates whether the UE supports active CSI-RS resources and ports for mixed codebook types in any slot. The following codebook combination is a possible mixed codebook combination {Type 1 Single Panel, Type 1 Multi Panel, Null } for UE supporting CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration.  A UE supporting this feature shall also indicate support of *spatialAdaptation-CSI-Feedback-r18*, or *spatialAdaptation-CSI-FeedbackPUSCH-r18*, or *spatialAdaptation-CSI-FeedbackPUCCH-r18*, or *spatialAdaptation-CSI-FeedbackAperiodic-r18*. | Band | No | N/A | N/A |
| ***mn-InitiatedCondPSCellChangeNRDC-r17***  Indicates whether the UE supports MN initiated conditional PSCell change in NR-DC, which is configured by NR *conditionalReconfiguration* using MN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in MN initiated conditional PSCell change in NR-DC. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. | Band | No | N/A | N/A |
| ***modifiedMPR-Behaviour***  Indicates whether UE supports modified MPR behaviour defined in TS 38.101-1 [2], TS 38.101-2 [3], and TS 38.101-5 [34]. | Band | No | N/A | N/A |
| ***mpe-Mitigation-r17***  Indicates the support of enhanced PHR reporting which includes pairs of (P-MPR, SSBRI/CRI).  This feature also includes following parameters:  - *maxNumP-MPR-RI-pairs-r17* indicates the maximum number of reported P-MPR and SSBRI/CRI pairs;  - *maxNumConfRS-r17* indicates the maximum number of candidate RS(s) configured in a RRC pool for MPE mitigation.  NOTE: *maxNumConfRS-r17* is also counted in *maxTotalResourcesForOneFreqRange-r16*/ *maxTotalResourcesForAcrossFreqRanges-r16.* | Band | No | N/A | FR2 only |
| ***mpr-PowerBoost-FR2-r16***  Indicates whether UE supports uplink transmission power boost by suspension of in-band emission (IBE) requirements as specified in TS 38.101-2 [3]. | Band | No | TDD only | FR2 only |
| ***mt-CG-SDT-r18***  Indicates whether the UE supports initiating MT-SDT procedure over configured grant type 1, as specified in TS 38.331 [9]. Except for NTN bands, UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  Except for NTN, a UE supporting this feature shall also support *mt-SDT-r18*. For NTN, a UE supporting this feature shall also support *mt-SDT-NTN-r18*. | Band | No | N/A | N/A |
| ***mTRP-BFD-RS-MAC-CE-r17***  Indicates the support of MAC-CE based update of explicit BFD-RS for mTRP BFR with maximum number of configured candidate BFD-RS per BWP for MAC-CE based update.  The UE indicating support of this feature shall also indicate the support of *mTRP-BFR-twoBFD-RS-Set-r17*. | Band | No | N/A | N/A |
| ***mTRP-BFR-association-PUCCH-SR-r17***  Indicates whether the UE supports association between a BFD-RS resource set on SpCell and a PUCCH SR resource.  The UE indicating support of this feature shall support *mTRP-BFR-PUCCH-SR-perCG-r17.* UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. | Band | No | N/A | N/A |
| ***mTRP-BFR-PUCCH-SR-perCG-r17***  Indicates the maximum number of supported PUCCH-SR resources for MTRP BFR per cell group. A UE that supports *mTRP-BFR-twoBFD-RS-Set-r17* shall indicate support of this feature with at least 1 PUCCH-SR resources for MTRP BFR per cell group.  UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. | Band | No | N/A | N/A |
| ***mTRP-BFR-twoBFD-RS-Set-r17***  Indicates whether the UE supports mTRP BFR based on two BFD-RS sets. The capability signalling comprises the following parameters:  *-* *maxBFD-RS-resourcesPerSetPerBWP-r17* indicates the maximum number of supported measured BFD-RS resources per set per BWP.  - *maxBFR-r17* indicates the maximum number of CCs per band configured with BFR (including spCell/SCell/MTRP BFR).  *-* *maxBFD-RS-resourcesAcrossSetsPerBWP-r17* indicates the supported maximum number of measured BFD-RS resources across two BFD-RS sets per BWP.  *maxBFD-RS-resourcesAcrossSetsPerBWP-r17* is also counted in *maxTotalResourcesForOneFreqRange-r16* and *maxTotalResourcesForAcrossFreqRanges-r16*. | Band | No | N/A | N/A |
| ***mTRP-CSI-additionalCSI-r17***  Indicates the maximum value of *numberOfSingleTRP-CSI-Mode1*.  The UE indicating support of this feature shall also indicate 'mode1' or 'both' in *cSI-Report-mode-r17* of *mTRP-CSI-EnhancementPerBand-r17*. | Band | No | N/A | N/A |
| ***mTRP-CSI-CMR-r17***  Indicates the support of a NZP CSI-RS resource referred by both a CMR pair configured for Rel-17 Multi-TRP CSI enhancement and a single CMR configured for Single-TRP measurement in a CSI reporting setting.  The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*. | Band | No | N/A | FR2 only |
| ***mTRP-CSI-EnhancementPerBand-r17***  Indicates support of CSI enhancements for multi-TRP including support of NZP CSI-RS resource pairs used as CMR (channel measurement resource) pairs for NCJT measurement hypothesis with N=1.  This feature also includes following parameters:  - *maxNumNZP-CSI-RS-r17* indicates the maximum number of NZP CSI-RS resources in one CSI-RS resource set: Ks,max  - *cSI-Report-mode-r17* indicates the CSI report mode selection. Mode1 indicates mode 1 with X=0, mode2 indicates mode 2, both indicate the support of both mode 1 with X=0 and mode 2.  - A list of supported combinations, up to 16, across all CCs simultaneously, where each combination includes:  - *maxNumTx-Ports-r17* indicates the maximum number of Tx ports in one NZP CSI-RS resource associated with an NCJT measurement hypothesis  - *maxTotalNumCMR-r17* indicates the maximum total number of CMRs for NCJT measurement  - *maxTotalNumTx-PortsNZP-CSI-RS-r17* indicates the maximum total number of Tx ports of NZP CSI-RS resources associated with NCJT measurement hypotheses  - *codebookModeNCJT-r17* indicates the supported codebook modes for NCJT CSI. | Band | No | N/A | N/A |
| ***mTRP-CSI-N-Max2-r17***  Indicates the support of maximum number of CMR pairs Nmax=2 configured in *NZP-CSI-RS-ResourceSet* for a given CSI report setting.  The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17.* | Band | No | N/A | N/A |
| ***mTRP-CSI-numCPU-r17***  Indicates the number of CSI processing units (CPUs) occupied by a pair of CMRs for NCJT CSI hypotheses. Maximum number of CPUs is reported in *csi-ReportFramework*.  The UE indicating support of this feature shall also indicate the support of *mTRP-CSI-EnhancementPerBand-r17*. | Band | No | N/A | N/A |
| ***mTRP-GroupBasedL1-RSRP-r17***  Indicates the support of group based L1-RSRP reporting enhancements.  This feature also includes following parameters:  - *maxNumBeamGroups-r17* indicates the maximum number N of beam groups (M=2 beams per beam group) in a single L1-RSRP reporting instance based on measurement on two CMR resource sets.  - *maxNumRS-WithinSlot-r17* indicates the maximum number of SSB and CSI-RS resources for measurement in both CMR sets within a slot across all CCs.  *-* *maxNumRS-AcrossSlot-r17* indicates the maximum number of configured SSB and CSI-RS resources for measurement in both CMR sets across all CCs.  *maxNumRS-WithinSlot-r17* and *maxNumRS-AcrossSlot-r17* are also counted in *maxTotalResourcesForOneFreqRange-r16* and *maxTotalResourcesForAcrossFreqRanges-r16*. | Band | No | N/A | N/A |
| ***mTRP-inter-Cell-r17***  Indicates the support of RRC configuration of additional PCI different from serving cell associated with the TCI state and/or QCL-info.  This feature also includes following parameters:  - *maxNumAdditionalPCI-Case1-r17* indicates the maximum number of configured additional PCIs per CC is X1 (Case 1) when each configuration of SSB time domain positions and periodicity of the additional PCIs is the same as SSB time domain positions and periodicity of the serving cell PCI.  - *maxNumAdditionalPCI-Case2-r17* indicates the maximum number of configured additional PCIs per CC is X2 (Case 2) when the configurations of SSB time domain positions and periodicity of the additional PCIs is not according to Case 1.  The UE indicating support of this feature shall also indicate the support of *multiDCI-MultiTRP-r16.* | Band | No | N/A | N/A |
| ***mTRP-PDCCH-anySpan-3Symbols-r17***  Indicates support of PDCCH repetition for PDCCH monitoring on any span of up to 3 consecutive OFDM symbols of a slot. It is applicable to 15kHz SCS only.  The UE indicating support of this feature shall also indicate support of *pdcchMonitoringSingleOccasion* and *mTRP-PDCCH-Repetition-r17*. | Band | No | N/A | FR1 only |
| ***mTRP-PDCCH-individual-r17***  Indicates the support of monitoring of individual candidates when one of the linked PDCCH candidates uses the same set of CCEs as an individual (unlinked) PDCCH candidate, and they both are associated with the same DCI size, scrambling, and CORESET.  The UE indicating support of this feature shall also indicate support of *mTRP-PDCCH-Repetition-r17*. | Band | No | N/A | N/A |
| ***mTRP-PDCCH-TwoQCL-TypeD-r17***  Indicates the support of determining two QCL-TypeD for time-domain overlapping CORESETs in the same CC or for intra-band CA when UE is configured with PDCCH repetition.  The UE indicating support of this feature shall also indicate support of *mTRP-PDCCH-Repetition-r1*7. | Band | No | N/A | FR2 only |
| ***mTRP-PUCCH-CyclicMapping-r17***  Indicates whether the UE supports cyclic mapping for beam mapping/power control parameter set mapping for PUCCH repetitions scheme 1 and/or 3 when the number of repetitions is larger than 2.  The UE that indicates support of this feature shall also indicate support of *mTRP-PUCCH-InterSlot-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUCCH-InterSlot-r17***  Indicates whether the UE supports the following features:  - support of PUCCH repetition scheme 1 (inter-slot repetition) with sequential mapping for repetitions larger than 2 and with cyclic mapping for 2 repetitions.  - support of up to two PUCCH power control parameter sets/spatial relation information per PUCCH resource. The power control parameter sets only apply to FR1 and spatial relation information only applies to FR2.  - supported PUCCH formats for PUCCH repetition scheme 1. | Band | No | N/A | N/A |
| ***mTRP-PUCCH-MAC-CE-r17***  Indicates the support of updating two Spatial Relation Info's and two sets of power control parameters for a group of PUCCH resources in a CC by MAC-CE.  The UE indicates support of this feature shall also indicate support of *mTRP-PUCCH-InterSlot-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUCCH-maxNum-PC-FR1-r17***  Indicates the maximum number of power control parameter sets configured for multi-TRP PUCCH repetition in FR1.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUCCH-InterSlot-r17.* | Band | No | N/A | FR1 only |
| ***mTRP-PUCCH-SecondTPC-r17***  Indicates whether the UE supports second TPC field for per TRP closed-loop power control for PUCCH with DCI formats 1\_1 / 1\_2.  The UE that indicates support of this feature shall also indicate support of *mTRP-PUCCH-InterSlot-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUSCH-A-CSI-r17***  Indicates the support of A-CSI report on two PUSCH repetitions.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17*  or *mTRP-PUSCH-RepetitionTypeA-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUSCH-CG-r17***  Indicates the support of CG PUSCH transmission towards M-TRPs using a single CG configuration. The UE uses same beam mapping principals as dynamic grant PUSCH repetition scheme.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17*  or *mTRP-PUSCH-RepetitionTypeA-r17*. | Band | No | N/A | N/A |
| ***mTRP-PUSCH-CSI-RS-r17***  Indicates the support of CSI-RS processing framework for SRS with two associated CSI-RS resources.  This feature also includes following parameters:  - *maxNumPeriodicSRS-r17* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP.  - *maxNumAperiodicSRS-r17* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP.  - *maxNumSP-SRS-r17* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP.  - *numSRS-ResourcePerCC-r17*: UE can process Y SRS resources associated with first and second CSI-RS resources simultaneously in a CC. Includes Periodic/Semi-Persistent/Aperiodic SRS.  - *numSRS-ResourceNonCodebook-r17*: UE can process up to X CSI-RS resources associated with SRS for non-codebook based transmission simultaneously.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-twoCSI-RS-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUSCH-cyclicMapping-r17***  Indicates the support of cyclic mapping when the number of repetitions is larger than 2 with repetition type.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17*  or *mTRP-PUSCH-RepetitionTypeA-r17*. | Band | No | N/A | N/A |
| ***mTRP-PUSCH-secondTPC-r17***  Indicates the support of second TPC field for per TRP closed-loop power control for PUSCH with DCI formats 0\_1 and 0\_2.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17*  or *mTRP-PUSCH-RepetitionTypeA-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUSCH-SP-CSI-r17***  Indicates the support of SP-CSI report on two PUSCH repetitions.  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17*  or *mTRP-PUSCH-RepetitionTypeA-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUSCH-twoCSI-RS-r17***  Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for non-codebook-based mTRP PUSCH.  The UE that indicates support of this feature shall also indicate support of *srs-AssocCSI-RS, csi-RS-IM-ReceptionForFeedbackPerBandComb and mTRP-PUSCH-RepetitionTypeA-r17.* | Band | No | N/A | N/A |
| ***mTRP-PUSCH-twoPHR-Reporting-r17***  Indicates the support of PHR reporting related to M-TRP PUSCH repetition (calculate two PHRs (at least corresponding to the CC that applies m-TRP PUSCH repetitions), each associated with a first PUSCH occasion corresponding to each SRS resource set, and report two PHRs).  The UE indicating support of this feature shall also indicate the support of *mTRP-PUSCH-TypeA-CB-r17* or *mTRP-PUSCH-RepetitionTypeA-r17.* | Band | No | N/A | N/A |
| ***multicastInactive-r18***  Indicates whether the UE supports multicast reception in RRC\_INACTIVE as specified in TS 38.331 [9], comprised of the following functional components:  - Supports group-common PDCCH/PDSCH for multicast with CRC scrambled by Multicast MCCH-RNTI;  - Supports group-common PDCCH/PDSCH for multicast with CRC scrambled by G-RNTI;  - Supports DCI format 4\_0 with CRC scrambled with Multicast MCCH-RNTI for multicast MCCH;  - Supports DCI format 4\_1 with CRC scrambled with G-RNTI for multicast MTCH;  - Supports multicast MCCH change notification indication via DCI;  - Supports CFR configuration for multicast;  - Supports CORESET and common search space configuration for multicast;  - Supports one G-RNTI for multicast reception;  - Supports RRC configured slot-level repetition up to 8 for multicast MTCH;  - Supports inter-slot TDM between group-common PDSCH for multicast MCCH and group-common PDSCH for multicast MTCH, or among group-common PDSCH for multicast MCCH, group-common PDSCH for multicast MTCH and other PDSCHs in different slots;  - Supports up to 64QAM for FR1/FR2;  - Supports 12-bit length of PDCP sequence number;  - Supports ROHC profiles 0x0000, 0x0001 and 0x0002;  - Supports 4 ROHC header compression context sessions;  - Supports UM MRB with 12-bit length of RLC sequence number;  - Supports UM MRB with 6-bit length of RLC sequence number;  - Supports long DRX cycle for MBS multicast reception as specified in TS 38.321 [8].  A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. A UE supporting this feature and supporting Mission Critical Services as described in clause 5.16.6 in TS 23.501 [37] shall also indicate the support of *thresholdBasedMulticastResume-r18*. | Band | No | N/A | N/A |
| ***multiPDSCH-SingleDCI-FR2-1-SCS-120kHz-r17***  Indicates whether the UE supports multi-PDSCH scheduling by single DCI for the operation with 120kHz SCS in FR2-1 and HARQ enhancements for both type 1 and type 2 HARQ codebook. | Band | No | N/A | N/A |
| ***multipleRateMatchingEUTRA-CRS-r16***  Indicates whether the UE supports multiple E-UTRA CRS rate matching patterns, which is supported only for FR1. The capability signalling comprises the following parameters:  - *maxNumberPatterns-r16* indicates the maximum number of LTE-CRS rate matching patterns in total within a NR carrier using 15 kHz SCS. The UE can report the value larger than 2 only if UE reports the value of *maxNumberNon-OverlapPatterns-r16* is larger than 1.  - *maxNumberNon-OverlapPatterns-r16* indicates the maximum number of LTE-CRS non-overlapping rate matching patterns within a NR carrier using 15 kHz SCS.  The UE can include this feature only if the UE indicates support of *rateMatchingLTE-CRS*. | Band | No | N/A | FR1 only |
| ***multipleTCI***  Indicates whether UE supports more than one TCI state configurations per CORESET. UE is only required to track one active TCI state per CORESET. UE is required to support minimum between 64 and number of configured TCI states indicated by *tci-StatePDSCH*. This field shall be set to *supported*. | Band | Yes | N/A | N/A |
| ***multiPUCCH-HARQ-ACK-ForMulticastUnicast-r17***  Indicates whether the UE supports two non-overlapping slot-based PUCCHs for ACK/NACK based HARQ-ACK feedback for multicast or for unicast and multicast with different priorities in a slot.  For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *priorityIndicatorInDCI-Multicast-r17* and *twoHARQ-ACK-CodebookForUnicastAndMulticast-r17*. | Band | No | N/A | N/A |
| ***multiPUSCH-ActiveConfiguredGrant-r18***  Indicates whether the UE supports multiple active multi-PUSCHs configured grant configurations for a BWP of a serving cell.  This feature also includes following parameters:  - *maxNumberConfigsPerBWP* indicates the supported maximum number of configured/active configured grant configurations in a BWP of a serving cell.  - *maxNumberConfigsAllCC-FR1* indicates the supported maximum number of configured/active configured grant configurations across all serving cells, and across MCG and SCG in case of NR-DC in FR1.  - *maxNumberConfigsAllCC-FR2* indicates the supported maximum number of configured/active configured grant configurations across all serving cells, and across MCG and SCG in case of NR-DC in FR2.  A UE supporting this feature shall also indicate support of *multiPUSCH-CG-r18*.  When UE supports both *activeConfiguredGrant-r16* and *multiPUSCH-ActiveConfiguredGrant-r18*, the total number which can be configured for CG with single-PUSCH TO in one CG period and CG with multi-PUSCH TO in one CG period should not exceed the value reported by *activeConfiguredGrant-r16*.  For all the reported bands in FR1, a same value is reported for *maxNumberConfigsAllCC*. For all the reported bands in FR2, a same value is reported for *maxNumberConfigsAllCC*.  The total number of configured/active configured grant configurations across all serving cells in FR1 is no greater than *maxNumberConfigsAllCC* in FR1.  The total number of configured/active configured grant configurations across all serving cells in FR2 is no greater than *maxNumberConfigsAllCC* in FR2.  If there are some serving cell(s) in FR1 and some serving cell(s) in FR2, the total number of configured/active configured grant configurations across all serving cells is no greater than max(*maxNumberConfigsAllCC-FR1*, *maxNumberConfigsAllCC-FR2*).  NOTE: Separate release of different multi-PUSCHs configuration grant Type 2 configuration, i.e., one DCI release one multi-PUSCHs configured grant Type 2 configuration is supported with this feature. | Band | No | N/A | N/A |
| ***multiPUSCH-CG-r18***  Indicates whether the UE supports multi-PUSCHs for configured grant by indicating whether the UE supports the determination of time-domain resource allocation for CG-PUSCHs associated to a multi-PUSCHs CG and also the maximum supported number of consecutive slots configured for CG-PUSCG TOs in one CG period.  This feature also includes following parameters:  - *n16* indicates the maximum supported number of consecutive slots configured for CG-PUSCH TOs in one CG period is 16.  - *n32* indicates the maximum supported number of consecutive slots configured for CG-PUSCH TOs in one CG period is 32.  A UE supporting this feature shall also indicate support of at least one of *configuredUL-GrantType1, configuredUL-GrantType1-v1650, configuredUL-GrantType2,* and *configuredUL-GrantType2-v1650.* | Band | No | N/A | N/A |
| ***multiPUSCH-SingleDCI-FR2-1-SCS-120kHz-r17***  Indicates whether the UE supports multi-PUSCH scheduling by single DCI for the operation with 120kHz SCS in FR2-1 with non-contiguous allocation. | Band | No | N/A | N/A |
| ***multiPUSCH-SingleDCI-NonConsSlots-r18***  Indicates support of Multi-PUSCH scheduling by single DCI format 0\_1 for the operation with non-contiguous allocation.  A UE supporting this feature shall also indicate support of *multiPUSCH-UL-grant-r16.* | Band | No | N/A | FR1 only |
| ***mux-HARQ-ACK-DiffPriorities-r17***  Indicates whether the UE supports HARQ-ACK with different priorities multiplexing on a PUCCH/PUSCH, comprised of the following functional components:  - Supports multiplexing a high-priority HARQ-ACK and a low-priority HARQ-ACK into a PUCCH. Supports separate coding for the two HARQ-ACKs;  - Supports multiplexing a low-priority HARQ-ACK, a high-priority HARQ-ACK and a high-priority SR into a PUCCH;  - Supports multiplexing a low-priority HARQ-ACK in a high-priority PUSCH (conveying UL-SCH only). Supports separate beta\_offset values for this priority combination;  - Supports multiplexing a high-priority HARQ-ACK in a low-priority PUSCH (conveying UL-SCH only). Supports separate beta\_offset values for this priority combination;  - Supports multiplexing a low-priority HARQ-ACK, a high-priority PUSCH, a high-priority HARQ-ACK and/or CSI;  - Supports multiplexing a high-priority HARQ-ACK, a low-priority PUSCH, a low-priority HARQ-ACK and/or CSI.  The UE indicating support of this feature shall also indicate the support of *twoHARQ-ACK-Codebook-type1-r16.* | Band | No | N/A | N/A |
| ***nack-OnlyFeedbackForMulticastWithDCI-Enabler-r17***  Indicates whether the UE supports DCI-based enabling/disabling NACK-only based HARQ-ACK feedback configured per G-RNTI by RRC signalling via DCI format 4\_2.  A UE supporting this feature shall also indicate support of *nack-OnlyFeedbackForMulticast-r17* and *dynamicMulticastDCI-Format4-2-r17*. | Band | No | N/A | N/A |
| ***nack-OnlyFeedbackForSPS-MulticastWithDCI-Enabler-r17***  Indicates whether the UE supports DCI-based enabling/disabling NACK-only based HARQ-ACK feedback configured per G-CS-RNTI by RRC signalling via DCI format 4\_2.  A UE that indicates support of this feature shall indicate support of *nack-OnlyFeedbackForSPS-Multicast-r17* and *sps-MulticastDCI-Format4-2-r17*. | Band | No | N/A | N/A |
| ***ncd-SSB-BWP-Wor-r18***  Indicates whether the UE supports RLM/BM/BFD and gapless L3 intra-frequency measurements based on NCD-SSB within active BWP. Bandwidth of UE-specific RRC configured BWP need not include bandwidth of the CORESET#0 (if CORESET#0 is present) and CD-SSB for PCell/PSCell (if configured). NCD-SSB within the active DL BWP can be used as the QCL source for other reference signal. UE performs L3 intra-frequency measurements without gaps based on NCD-SSB, where the NCD-SSB is within the active DL BWP.  NOTE: This feature applies only to PCell and PSCell (if configured). It is not applicable to RedCap or eRedCap UEs. | Band | No | N/A | N/A |
| ***nesBasedCondHandoverWithDCI-r18***  Indicates whether the UE supports DCI-based enabling/disabling NES-specific CHO execution condition, i.e. NES-specific CHO execution condition based on source cell NES mode indicated via DCI format 2\_9 as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16*. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. | Band | No | N/A | N/A |
| ***nes-CellDTX-DRX-r18***  Indicates whether the UE supports cell DTX and/or DRX operation by RRC configuration. The supported number of cell DTX/DRX patterns per cell group is 2, regardless of each pattern is for cell DTX only, cell DRX only, or both. A UE setting this field to the value 'cellDTXonly' or 'both' shall also indicate support of *longDRX-Cycle*. | Band | No | N/A | N/A |
| ***nes-CellDTX-DRX-DCI2-9-r18***  Indicates whether the UE supports cell DTX/DRX configuration activation and deactivation via DCI 2\_9.  A UE supporting this feature shall also indicate support of *nes-CellDTX-DRX-r18*. | Band | No | N/A | N/A |
| ***nonGroupSINR-reporting-r16***  Indicates N\_max L1-SINR values reported when UE supports non-group based L1-SINR reporting. UE indicates support of this feature shall indicate support of *ssb-csirs-SINR-measurement-r16.* | Band | No | N/A | N/A |
| ***nr-PDCCH-OverlapLTE-CRS-RE-r18***  Indicates whether the UE supports reception of NR PDCCH candidates that overlap with LTE CRS REs within a NR carrier using 15 kHz SCS. The UE is provided with LTE CRS RM pattern by configuration of one CRS rate matching pattern via *lte-CRS-ToMatchAround*. NR PDCCH that overlaps with LTE CRS REs is in Type-1 CSS with dedicated RRC configuration, Type-3 CSS, and/or USS that are monitored within the first 3 OFDM symbols of a slot. This feature comprises following components:  - *overlapInRE-r18* indicates reception of a NR PDCCH candidate in REs that overlap with LTE CRS: Value *oneSymbolNoOverlap* indicates when at least one symbol of the NR PDCCH candidate and the DMRS for demodulation of the NR PDCCH candidateis not overlapped with LTE CRS. Value *someOrAllSymOverlap* indicates when some or all of symbols of NR PDCCH candidate overlap with LTE CRS.  - *overlapInSymbol-r18* indicates reception of NR PDCCH candidates that overlap with LTE CRS REs on the X-th symbols of an NR slot: Value *symbol2* indicates only 2nd symbol, Value *symbol1And2* indicates 1st and 2nd symbols;  The UE supporting this feature shall also indicate support of *rateMatchingLTE-CRS*.  NOTE: This feature is supported by UE performing channel estimation with a regular Rel-15 DMRS pattern in frequency dimension, i.e., no change to UE assumption on PDCCH DMRS RE positions/pattern in a symbol that are used for the purpose of channel estimation. | Band | No | N/A | FR1 only |
| ***nr-PDCCH-OverlapLTE-CRS-RE-MultiPatterns-r18***  Indicates whether the UE supports reception of NR PDCCH candidates in REs that overlap with LTE CRS when UE is provided with LTE CRS RM patterns by configuration of one or multiple non-overlapping CRS rate matching patterns via *lte-CRS-PatternList1-r16* if the UE supports *multipleRateMatchingEUTRA-CRS-r16* or *lte-CRS-PatternList3-r18* if the UE supports *nr-PDCCH-OverlapLTE-CRS-RE-MultiPatterns-r18.*  The UE supporting of this feature shall also indicate support of *nr-PDCCH-OverlapLTE-CRS-RE-r18* and at least one of *multipleRateMatchingEUTRA-CRS-r16* and *twoRateMatchingEUTRA-CRS-patterns-3-4-r18*.  NOTE: The feature is supported by UE performing channel estimation with a regular Rel-15 DMRS pattern in frequency dimension, i.e., no change to UE assumption on PDCCH DMRS RE positions/pattern in a symbol that are used for the purpose of channel estimation. | Band | No | N/A | FR1 only |
| ***nr-PDCCH-OverlapLTE-CRS-RE-Span-3-4-r18***  Indicates whether the UE supports NR PDCCH that overlaps with LTE CRS REs is in Type-1 CSS with dedicated RRC configuration, Type-3 CSS, and/or USS that are monitored within a single span of 3 consecutive OFDM symbols that is within the first 4 OFDM symbols in a slot.  The UE supporting of this feature shall also indicate support of *nr-PDCCH-OverlapLTE-CRS-RE-r18* and *pdcch-MonitoringSingleSpanFirst4Sym-r16*. | Band | No | N/A | FR1 only |
| ***nr-UE-TxTEG-ID-MaxSupport-r17***  Indicates the maximum number of UE TxTEG for SRS resource for positioning, which is supported and reported by UE for UL TDOA. The UE can include this field only if the UE supports *srs-AllPosResources-r16*. | Band | No | N/A | N/A |
| ***ntn-DMRS-BundlingNGSO-r18***  Indicates whether the UE supports DM-RS bundling for PUSCH over consecutive slots in NGSO scenarios and pre-compensation to keep phase rotation due to timing drift within the phase difference limit.  The UE indicates the maximum duration during which UE is able to maintain power consistency and phase continuity to support NTN DM-RS bundling for PUSCH over consecutive slots.  A UE supporting this feature shall indicate support of *uplinkPreCompensation-r17* and at least one of *dmrs-BundlingPUSCH-RepTypeA-r17*, *dmrs-BundlingPUSCH-RepTypeB-r17* or *dmrs-BundlingPUSCH-RepTypeC-r17*.  NOTE 1: This UE feature group is applicable only for bands in Tables 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in Clause 5.2 of TS 38.104 [35].  NOTE 2: A UE that does not report support of this feature and reports support of *maxDurationDMRS-Bundling-r17* for an NTN band can perform DMRS bundling only in GSO scenario in the NTN band.  NOTE 3: DM-RS bundling is only applicable for UL transmissions with pi/2 BPSK, BPSK, and QPSK modulation orders.  NOTE 4: For bands in Table 5.2.2-1 in TS 38.101-5 [34], reported value in *maxDurationDMRS-Bundling-r17* is applied only for GSO scenario. | Band | No | N/A | N/A |
| ***olpc-SRS-Pos-r16***  Indicates whether the UE supports OLPC for SRS for positioning. The capability signalling comprises the following parameters.  - *olpc-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the serving cell in the same band. The UE can include this field only if the UE supports *NR-DL-PRS-ProcessingCapability-r16* defined in TS 37.355 [22], and *srs-PosResources-r16*. Otherwise, the UE does not include this field;  - *olpc-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field;  - *olpc-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE can include this field only if the UE supports *olpc-SRS-PosBasedOnPRS-Serving-r16*. Otherwise, the UE does not include this field;  NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell.  - *maxNumberPathLossEstimatePerServing-r16* indicates the maximum number of pathloss estimates that the UE can simultaneously maintain for all the SRS resource sets for positioning per serving cell in addition to the up to four pathloss estimates that the UE maintains per serving cell for the PUSCH/PUCCH/SRS transmissios. The UE shall include this field if the UE supports any of *olpc-SRS-PosBasedOnPRS-Serving-r16, olpc-SRS-PosBasedOnSSB-Neigh-r16* and *olpc-SRS-PosBasedOnPRS-Neigh-r16.* Otherwise, the UE does not include this field. | Band | No | N/A | N/A |
| ***olpc-SRS-PosRRC-Inactive-r17***  Indicates whether the UE supports OLPC for SRS for positioning in RRC\_INACTIVE. The capability signalling comprises the following parameters.  - *olpc-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the serving cell in the same band. The UE can include this field only if the UE supports *NR-DL-PRS-ProcessingCapability-r16* defined in TS 37.355 [22], and *srs-PosResourcesRRC-Inactive-r17*. Otherwise, the UE does not include this field;  - *olpc-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE can include this field only if the UE supports *srs-PosResourcesRRC-Inactive-r17*. Otherwise, the UE does not include this field;  - *olpc-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports OLPC for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE can include this field only if the UE supports *olpc-SRS-PosBasedOnPRS-Serving-r16*. Otherwise, the UE does not include this field;  NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell.  *-* *maxNumberPathLossEstimatePerServing-r16* indicates the maximum number of pathloss estimates that the UE can simultaneously maintain for all the SRS resource sets for positioning per serving cell in addition to the up to four pathloss estimates that the UE maintains per serving cell for the PUSCH/PUCCH/SRS transmissions. The UE shall include this field if the UE supports any of *olpc-SRS-PosBasedOnPRS-Serving-r16, olpc-SRS-PosBasedOnSSB-Neigh-r16* and *olpc-SRS-PosBasedOnPRS-Neigh-r16.* Otherwise, the UE does not include this field. | Band | No | N/A | N/A |
| ***oneShotHARQ-feedbackPhy-Priority-r17***  Indicates whether the UE supports transmission of type 3 HARQ-ACK codebook using the first or second PUCCH configuration based on PHY priority indication in the triggering DCI.  A UE supporting this feature shall also indicate support of *oneShotHARQ-feedback-r16* and *twoHARQ-ACK-Codebook-type1-r16*. | Band | No | N/A | N/A |
| ***oneShotHARQ-feedbackTriggeredByDCI-1-2-r17***  Indicates whether the UE supports one-shot HARQ ACK feedback triggered by DCI format 1\_2, comprised of the following functional components:  -Supports feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1\_2 scheduling a PDSCH;  -Supports feedback of type 3 HARQ-ACK codebook, triggered by a DCI 1\_2 without scheduling a PDSCH using a reserved FDRA value.  A UE supporting this feature shall also indicate support of *oneShotHARQ-feedback-r16* and *dci-Format1-2And0-2-r16*. | Band | No | N/A | N/A |
| ***oneSlotPeriodicTRS-r16***  Indicates whether the UE supports one-slot periodic TRS configuration only when no two consecutive slots are indicated as downlink slots by *tdd-UL-DL-ConfigurationCommon* or *tdd-UL-DL-ConfigDedicated*. If the UE supports this feature, the UE needs to report *csi-RS-ForTracking*. | Band | No | TDD only | FR1 only |
| ***outOfOrderOperationDL-r16***  Indicates whether the UE supports out of order operation for DL. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16*. The capability signalling comprises the following parameters:  *- supportPDCCH-ToPDSCH-r16* indicates support out-of-order operation for PDCCH to PDSCH;  *- supportPDSCH-ToHARQ-ACK-r16* indicates support out-of-order operation for PDSCH to HARQ-ACK. | Band | No | N/A | N/A |
| ***outOfOrderOperationUL-r16***  Indicates whether the UE supports out of order operation for UL. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.*  Note: Same closed loop index for power control across PUSCHs associated with different *CORESETPoolIndex* values is not supported by a UE indicating the support of this feature when TPC accumulation is enabled. | Band | No | N/A | N/A |
| ***overlapPDSCHsFullyFreqTime-r16***  Indicates the maximal number of PDSCH scrambling sequences per serving cell when the UE supports PDSCHs with fully overlapping Resource Elements. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16.*  Note: A UE may assume that its maximum receive timing difference between the DL transmissions from two TRPs is within a Cyclic Prefix | Band | No | N/A | N/A |
| ***overlapPDSCHsInTimePartiallyFreq-r16***  Indicates whether the UE supports PDSCHs with partially overlapping Resource Elements. The UE that indicates support of this feature shall support *overlapPDSCHsFullyFreqTime-r16.* | Band | No | N/A | N/A |
| ***overlapRateMatchingEUTRA-CRS-r16***  Indicates whether the UE supports two LTE-CRS overlapping rate matching patterns within a part of NR carrier using 15 kHz SCS overlapping with a LTE carrier. If the UE supports this feature, the UE needs to report *multipleRateMatchingEUTRA-CRS-r16 and multiDCI-MultiTRP-r16*. | Band | No | N/A | FR1 only |
| ***overlapRateMatchingEUTRA-CRS-Patterns-3-4-Diff-CS-Pool-r18***  Indicates whether the UE supports two LTE-CRS overlapping rate matching patterns configured by *lte-CRS-PatternList3-r18* and *lte-CRS-PatternList4-r18* with two different values of *coresetPoolIndex* within a part of NR carrier using 15 kHz overlapping with a LTE carrier for the case when *crs-RateMatchPerCoresetPoolIndex* is configured.  UE supporting this feature shall support *twoRateMatchingEUTRA-CRS-patterns-3-4-r18* and *multiDCI-MultiTRP-r16.* | Band | No | N/A | FR1 only |
| ***overlapUL-TransReduction-r18***  Indicates whether the UE supports reducing the overlapping duration of the later of the two time-domain overlapping UL transmissions when the UE is not configured with UL STx2P for multi-DCI based multi-TRP operation with two TA enhancement.  A UE supporting this feature shall indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18* or *multiDCI-InterCellMultiTRP-TwoTA-r18*.  NOTE: If UE does not support this feature, UE does not expect the two UL transmissions to overlap (i.e., scheduling restriction is applied to avoid overlap between the two UL transmissions). | Band | No | N/A | N/A |
| ***parallelMeasurementWithoutRestriction-r17***  Indicates whether the UE supports measurements on cells belonging to different satellites as the serving cell in parallel with normal operation (i.e. data/control transmission and/or reception, and L1 measurements) of serving cell without scheduling restrictions. The feature is applicable only when the serving satellite is NGSO. If the serving cell belongs to GSO satellite, the scheduling restriction is not applied on the premise that a mixed type of satellites on the same frequency layer is not supported in this release. If not reported, for measurements in parallel with normal operation of serving cell scheduling restrictions shall apply. | Band | No | FDD only | FR1 only |
| ***parallelPRS-MeasRRC-Inactive-r17***  Indicates whether the UE supports performing RRM measurement and PRS measurement in parallel. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively | Band | No | N/A | N/A |
| ***pdcch-MonitoringResumptionAfterUL-NACK-r18***  Indicates whether the UE supports PDCCH monitoring resumption after UL NACK.  The UE indicating support of this feature shall also indicate support of *pdcch-SkippingWithoutSSSG-r17.* | Band | No | N/A | N/A |
| ***pdcch-SkippingWithoutSSSG-r17***  Indicates whether the UE supports up to 2-bit indication of PDCCH skipping by scheduling DCI if SSSG is not configured as specified in TS 38.213 [11], clause 10.4. | Band | No | N/A | N/A |
| ***pdcch-SkippingWithSSSG-r17***  Indicates whether the UE supports 2-bit indication of SSSG switching between 2 SSSGs, PDCCH skipping by scheduling DCI, and timer based SSSG switching as specified in TS 38.213 [11], clause 10.4. UE supports search space set group switching capability-1 according to Table 10.4-1 of TS 38.213 [11].  UE indicating support of this feature shall also indicate support of *pdcch-SkippingWithoutSSSG-r17* and *sssg-Switching-1bitInd-r17*. | Band | No | N/A | N/A |
| ***pdc-maxNumberPRS-ResourceProcessedPerSlot-r18***  Indicates the maximum number of single-symbol DL-PRS resources used in RTT-based Propagation delay compensation that UE can process in a slot. SCS: 15 kHz, 30 kHz, 60 kHz are applicable for FR1 bands. SCS: 60 kHz, 120 kHz are applicable for FR2 bands. A UE which supports *pdc-maxNumberPRS-ResourceProcessedPerSlot-r18* shall support single-symbol DL-PRS for PDC with the comb sizes from {2,4,6,12}.  A UE supporting this feature shall also indicate support of *rtt-BasedPDC-PRS-r17*. | Band | No | N/A | N/A |
| ***pdsch-1024QAM-2MIMO-FR1-r17***  Indicates whether the UE supports 1024QAM modulation scheme for PDSCH with maximum 2 MIMO layers for FR1 as defined in TS 38.211 [6], MCS and CQI feedback tables based on 1024QAM modulation order as defined in TS 38.214 [12].  UE indicating support of this feature shall also indicate support of *pdsch-256QAM-FR1* and shall not indicate support of *pdsch-1024QAM-FR1-r17*. | Band | No | N/A | FR1 only |
| ***pdsch-1024QAM-FR1-r17***  Indicates whether the UE supports 1024QAM modulation scheme for PDSCH for FR1 as defined in TS 38.211 [6], MCS and CQI feedback tables based on 1024QAM modulation order as defined in TS 38.214 [12].  UE indicating support of this feature shall also indicate support of *pdsch-256QAM-FR1* and shall not indicate support of *pdsch-1024QAM-2MIMO-FR1-r17*. | Band | No | N/A | FR1 only |
| ***pdsch-256QAM-FR2***  Indicates whether the UE supports 256QAM modulation scheme for PDSCH for FR2 as defined in 7.3.1.2 of TS 38.211 [6]. | Band | No | N/A | FR2 only |
| ***pdsch-MappingTypeB-Alt-r16***  Indicates whether the UE supports PDSCH Type B scheduling of length 9 and 10 OFDM symbols, and DMRS shift for length-10 symbols. If the UE supports this feature, the UE needs to report *pdsch-MappingTypeB*. | Band | No | N/A | FR1 only |
| ***periodicBeamReport***  Indicates whether UE supports periodic 'CRI/RSRP' or 'SSBRI/RSRP' reporting using PUCCH formats 2, 3 and 4 in one slot. | Band | Yes | N/A | N/A |
| ***posJointTriggerBySingleDCI-RRC-Connected-r18***  Indicates whether UE supports a Rel-17 single DCI scheduling positioning SRS resource sets across the linked carriers for SRS bandwidth aggregation in RRC\_CONNECTED state.  A UE indicating support of this feature shall also indicate support of *posSRS-BWA-RRC-Connected-r18*. | Band | No | N/A | N/A |
| ***posSRS-BWA-RRC-Inactive-r18***  Indicates the UE capability for support of positioning SRS bandwidth aggregation in RRC\_INACTIVE and the support of the same SRS power reduction across aggregated carriers. The capability signalling comprises the following parameters:  - *numOfCarriersIntraBandContiguous-r18* indicates the number of supported aggregated carriers in intra band contiguous carriers, which is supported and reported by UE.  - *maximumAggregatedBW-TwoCarriersFR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR1, which is supported and reported by UE.  - *maximumAggregatedBW-TwoCarriersFR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR2, which is supported and reported by UE.  - *maximumAggregatedBW-ThreeCarriersFR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR1, which is supported and reported by UE.  - *maximumAggregatedBW-ThreeCarriersFR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR2, which is supported and reported by UE.  - *maximumAggregatedResourceSet-r18* indicates the max number of aggregated SRS resource sets for positioning supported by UE for SRS bandwidth aggregation, which is supported and reported by UE.  - *maximumAggregatedResourcePeriodic-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation, which is supported and reported by UE.  - *maximumAggregatedResourceSemi-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation, which is supported and reported by UE.  - *maximumAggregatedResourcePeriodicPerSlot-r18* indicates the maximum number of aggregated periodic SRS resources for bandwidth aggregation per slot, which is supported and reported by UE.  - *maximumAggregatedResourceSemiPerSlot-r18* indicates the maximum number of aggregated semi-persistent SRS resources for bandwidth aggregation per slot, which is supported and reported by UE.  - *guardPeriod-r18* indicates the guard period in microseconds before and after aggregated SRS transmission.  *- powerClassForTwoAggregatedCarriers-r18* indicates the power class of supported two aggregated carriers in intra band contiguous carriers*.*  *- powerClassForThreeAggregatedCarriers-r18* indicates the power class of supported three aggregated carriers in intra band contiguous carriers*.*  NOTE: The power class is only applicable for FR1 bands.  UE indicating support of this feature shall also indicate support of *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17.* If the UE indicates support of this feature, the fields *srsPosWithoutRestrictionOnBWP-r17* and *differentCenterFreqBetweenSRSposAndInitialBWP-r17* in *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17* shall be set to *supported*. | Band | No | N/A | N/A |
| ***posSRS-PreconfigureRRC-InactiveInitialUL-BWP-r18***  Indicates whether the UE supports preconfigured SRS with validity area in RRC\_INACTIVE for initial UL BWP.  UE indicating support of this feature shall also indicate support of *posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18*. | Band | No | N/A | N/A |
| ***posSRS-PreconfigureRRC-InactiveOutsideInitialUL-BWP-r18***  Indicates whether the UE supports preconfigured SRS with validity area in RRC\_INACTIVE outside initial UL BWP.  UE indicating support of this feature shall also indicate support of *posSRS-ValidityAreaRRC-InactiveOutsideInitialUL-BWP-r18*. | Band | No | N/A | N/A |
| ***posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17***  Indicates support of Positioning SRS transmission in RRC\_INACTIVE state configured outside initial UL BWP. The capability signalling comprises the following parameters:  - *maxSRSposBandwidthForEachSCS-withinCC-FR1-r17* Indicates the maximum SRS bandwidth supported for each SCS that UE supports within a single CC for FR1*;*  - *maxSRSposBandwidthForEachSCS-withinCC-FR2-r17* indicates the maximum SRS bandwidth supported for each SCS that UE supports within a single CC for FR2;  - *maxNumOfSRSposResourceSets-r17* indicates the max number of SRS Resource Sets for positioning supported by UE;  - *maxNumOfPeriodicSRSposResources-r17* indicates the max number of periodic SRS Resources for positioning;  - *maxNumOfPeriodicSRSposResourcesPerSlot-r17* indicates the max number of periodic SRS Resources for positioning per slot;  - *differentNumerologyBetweenSRSposAndInitialBWP-r17* indicates the support of different numerology between the SRS and the initial UL BWP;  - *srsPosWithoutRestrictionOnBWP-r17* indicates the support of SRS operation without restriction on the BW: BW of the SRS may not include BW of the CORESET#0 and SSB;  - *maxNumOfPeriodicAndSemipersistentSRSposResources-r17* indicates the max number of P/SP SRS Resources for positioning;  - *maxNumOfPeriodicAndSemipersistentSRSposResourcesPerSlot-r17* indicates the max number of P/SP SRS Resources for positioning per slot;  - *differentCenterFreqBetweenSRSposAndInitialBWP-r17* indicates the support of a different center frequency between the SRS for positioning and the initial UL BWP;  - *switchingTimeSRS-TX-OtherTX-r17* indicates the switching time between SRS TX and other TX in initial UL BWP or RX in initial DL BWP  - *maxNumOfSemiPersistentSRSposResources-r17* indicates the max number of semi-persistent SRS Resources for positioning;  - *maxNumOfSemiPersistentSRSposResourcesPerSlot-r17* indicates the max number of semi-persistent SRS Resources for positioning per slot.  The UE can include this field only if the UE supports *srs-PosResourcesRRC-Inactive-r17*. Otherwise, the UE does not include this field;  NOTE 1: The BWP with SRS for positioning is defined by the parameters *locationAndBandwidth*, SCS, CP in the same way as other BWPs.  NOTE 2: If *differentCenterFreqBetweenSRSposAndInitialBWP-r17* is not signalled, the UE only supports same center frequency between the SRS for positioning and initial UL BWP.  NOTE 3: If *differentNumerologyBetweenSRSposAndInitialBWP-r17* is not signalled, the UE only supports same numerology between the SRS and the initial UL BWP.  NOTE 4: If *srsPosWithoutRestrictionOnBWP-r17* is not signalled, the UE supports only SRS BW that include the BW of the CORESET #0 and SSB.  NOTE 5: The fields of *maxNumOfSemiPersistentSRSposResources-r17* and *maxNumOfSemiPersistentSRSposResourcesPerSlot-r17* shall be reported together if supported by UE. One of the fields between *maxSRSposBandwidthForEachSCS-withinCC-FR1-r17* and *maxSRSposBandwidthForEachSCS-withinCC-FR2-r17,* and the fields of *maxNumOfSRSposResourceSets-r17, maxNumOfPeriodicSRSposResources-r17, maxNumOfPeriodicSRSposResourcesPerSlot-r17, maxNumOfPeriodicAndSemipersistentSRSposResources-r17, maxNumOfPeriodicAndSemipersistentSRSposResourcesPerSlot-r17,* and *switchingTimeSRS-TX-OtherTX-r17* shall be reported together if supported by UE.  NOTE 6: *srsPosWithoutRestrictionOnBWP-r17* is not applicable to FDD or SUL bands. | Band | No | N/A | N/A |
| ***posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18***  Indicates whether the UE support SRS for positioning configuration in multi cells in RRC\_INACTIVE for initial UL BWP.  UE indicating support of this feature shall also indicate support of *posSRS-RRC-Inactive-InInitialUL-BWP-r17.* | Band | No | N/A | N/A |
| ***posSRS-ValidityAreaRRC-InactiveOutsideInitialUL-BWP-r18***  Indicates whether the UE supports SRS for positioning configuration in multi cells in RRC\_INACTIVE outside initial UL BWP.  UE indicating support of this feature shall also indicate support of *posSRS-RRC-Inactive-OutsideInitialUL-BWP-r17* and *posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18.* | Band | No | N/A | N/A |
| ***posUE-TA-AutoAdjustment-r18***  Indicates whether the UE supports autonomous TA adjustment when cell-reselection happens.  UE indicating support of this feature shall also indicate support of *posSRS-ValidityAreaRRC-InactiveInitialUL-BWP-r18.* | Band | No | N/A | N/A |
| ***powerAdaptation-CSI-Feedback-r18***  Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for periodic CSI reporting and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for periodic CSI reporting. This capability signalling comprises the following parameters:  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC.  - *totalNumberCSI-Reporting-r18* indicates total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP.  NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 3: If a UE reports both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*.  NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capabiliy for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *powerAdaptation-CSI-FeedbackPerBC-r18.* | Band | No | N/A | N/A |
| ***powerAdaptation-CSI-FeedbackAperiodic-r18***  Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for aperiodic CSI reporting and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for aperiodic CSI reporting. This capability signalling comprises the following parameters:  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration.  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *totalNumberCSI-Reporting-r18* total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP.  NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 3: If a UE reports both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*.  NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *powerAdaptation-CSI-FeedbackAperiodicPerBC-r18.* | Band | No | N/A | N/A |
| ***powerAdaptation-CSI-FeedbackPUCCH-r18***  Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUCCH and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH). This capability signalling comprises the following parameters:  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration.  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP.  NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset.  NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUCCH* and *powerAdaptation-CSI-FeedbackPUCCH-PerBC-r18.* | Band | No | N/A | N/A |
| ***powerAdaptation-CSI-FeedbackPUSCH-r18***  Indicates whether the UE supports power domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUSCH and single-panel type 1 codebook. The UE supports CSI feedback based on CSI report sub-configuration(s), each containing one power offset for semi-persistent CSI reporting. This capability signalling comprises the following parameters:  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration.  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC.  - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP.  NOTE 1: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 2: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 3: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset.  NOTE 4: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 5: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUSCH* and *powerAdaptation-CSI-FeedbackPUSCH-PerBC-r18.* | Band | No | N/A | N/A |
| ***powerBoosting-pi2BPSK***  Indicates whether UE supports power boosting for pi/2 BPSK, when applicable as defined in 6.2 of TS 38.101-1 [2] / TS 38.101-5 [34]. It is mandatory with capability signalling. This capability is not applicable to IAB-MT. | Band | CY | TDD only | FR1 only |
| ***prach-CoverageEnh-r18***  Indicates whether the UE supports {2, 4, 8} for the number of multiple PRACH transmissions with same Tx spatial filter. | Band | No | N/A | N/A |
| ***prach-Repetition-r18***  Indicates whether the UE supports transmitting two PRACH repetitions when a gap between the last symbol of a PRACH repetition in the first slot and the first symbol of a PRACH repetition in the second slot is less than N symbols, where N=2 for μ=0 or μ=1, N=4 for μ=2 or μ=3, N=16 for μ=5, N=32 for μ=6, and μ is the SCS configuration for the UL BWP with the PRACH.  A UE supporting this feature shall also indicate support of *prach-CoverageEnh-r18.* | Band | No | N/A | N/A |
| ***priorityIndicatorInDCI-Multicast-r17***  Indicates whether the UE supports DL priority indication for multicast in DCI, comprised of the following functional components:  - Support of priority indicator field configured in DCI formats 4\_2 with CRC scrambled with G-RNTI for multicast;  - Supports two HARQ-ACK codebooks with different priorities to be simultaneously constructed different priorities for multicast and multicast at a UE.  For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForMulticast-r17* and *dynamicMulticastDCI-Format4-2-r17*. | Band | No | N/A | N/A |
| ***priorityIndicatorInDCI-SPS-Multicast-r17***  Indicates whether the UE supports priority indicator field configured in DCI format 4\_2 for multicast HARQ-ACK feedback of SPS multicast.  For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *ack-NACK-FeedbackForSPS-Multicast-r17* and *sps-MulticastDCI-Format4-2-r17*. | Band | No | N/A | N/A |
| ***prs-MeasurementWithoutMG-r17***  Indicates whether the UE supports using the threshold to compare the Rx time difference between the serving cell and a neighbour cell/TRP for PRS measurements, as defined in clause 9.9.1.2 of TS 38.133 [5], to determine whether the PRS from the non-serving cell satisfy the condition of PRS measurement outside MG. The UE can include this field only if the UE supports one of *prs-ProcessingWindowType1A-r17, prs-ProcessingWindowType1B-r17* and *prs-ProcessingWindowType2-r17*. | Band | No | N/A | N/A |
| ***prs-ProcessingCapabilityOutsideMGinPPW-r17***  Indicates the DL-PRS Processing Capability outside MG of each of the supported PRS Processing Window (PPW) Type in the case the UE supports multiple PPW Types in a band and comprises the following parameters:  - *prsProcessingType-r17****:*** Indicates the PPW Type for which the *prs-ProcessingCapabilityOutsideMGinPPW-r17* are provided.  - *ppw-dl-PRS-BufferType-r17*: Indicates DL-PRS buffering capability. Value *'type1'* indicates sub-slot/symbol level buffering and value *'type2'* indicates slot level buffering.  - *ppw-durationOfPRS-Processing1-r17*: Indicates the duration of DL-PRS symbols N in units of ms a UE can process every T ms assuming maximum DL-PRS bandwidth provided in *ppw-maxNumOfDL-Bandwidth-r17* and comprises the following parameters:  - *ppw-durationOfPRS-ProcessingSymbolsN-r17*: This field specifies the values for *N* with values msDot125 indicates 0.125ms, msDot25 indicates 0.25ms, and so on  - *ppw-durationOfPRS-ProcessingSymbolsT-r17*: This field specifies the values for *T* with values ms1 indicates 1ms, ms2 indicates 2ms, and so on.  - *ppw-durationOfPRS-Processing2-r17*: Indicates the duration of DL-PRS symbols N2 in units of ms a UE can process every T2 ms assuming maximum DL-PRS bandwidth provided in *ppw-maxNumOfDL-Bandwidth-r17* and comprises the following parameters:  - *ppw-durationOfPRS-ProcessingSymbolsN2-r17*: This field specifies the values for *N2* with values msDot125 indicates 0.125ms, msDot25 indicates 0.25ms, and so on.  - *ppw-durationOfPRS-ProcessingSymbolsT2-r17*: This field specifies the values for *T2* with values ms4 indicates 4ms, ms5 indicates 5ms, and so on.  - *ppw-maxNumOfDL-PRS-ResProcessedPerSlot-r17*: Indicates the maximum number of DL PRS bandwidth in MHz, which is supported and reported by UE for PRS measurement outside MG within the PPW.  - *ppw-maxNumOfDL-Bandwidth-r17*: Indicates the maximum number of DL PRS bandwidth in MHz for FR1 and FR2, which is supported and reported by UE for PRS measurement outside MG within the PPW.  The UE can include this field only if the UE supports one of *prs-ProcessingWindowType1A-r17*, *prs-ProcessingWindowType1B-r17* and *prs-ProcessingWindowType2-r17*. Otherwise, the UE does not include this field.  NOTE 1: A UE that supports one of *prs-ProcessingWindowType1A-r17*, *prs-ProcessingWindowType1B-r17* or *prs-ProcessingWindowType2-r17* shall always include the *prs-ProcessingCapabilityOutsideMGinPPW-r17*.  NOTE 2: The (N, T) in *ppw-durationOfPRS-Processing1-r17* is interpreted as in (N,T) in *durationOfPRS-Processing-r16* in TS 37.355 [22], and the UE is expected to receive the DL-PRS within the PPW but the processing of the received DL-PRS may be outside a PPW  NOTE 3: The (N2, T2) in *ppw-durationOfPRS-Processing2-r17* is interpreted such that the UE is capable of measuring up to N2 ms DL-PRS within a PPW and is capable of completing the DL-PRS processing within the PPW, e.g., if the time duration from the last symbol of the measured DL-PRS resource(s) inside the PPW to the end of PPW is not smaller than T2 ms.  NOTE 4: A UE which supports *prs-ProcessingCapabilityOutsideMGinPPW-r17* shall support either *ppw-durationOfPRS-Processing1-r17* or *ppw-durationOfPRS-Processing2-r17*, but not both for each supported PPW type in a band. | Band | No | N/A | N/A |
| ***prs-ProcessingRRC-Inactive-r17***  Indicates whether the UE supports PRS processing in RRC\_INACTIVE. | Band | No | N/A | N/A |
| ***prs-ProcessingWindowType1A-r17***  Indicates whether the UE supports PRS processing Type 1A, subject to the UE determining that DL PRS to be higher priority for PRS measurement outside MG and in a PRS processing window and the priority handling options of PRS as follows:  - Option 1: Support of "st1" and "st3" defined in clause 5.1.6.5 of TS 38.214 [12].  - Option 2: Support of "st1", "st2", and "st3" defined in clause 5.1.6.5 of TS 38.214 [12].  NOTE 1: Void.  - Option 3: Support of "st1" only defined in clause 5.1.6.5 of TS 38.214 [12].  The UE can include this field only if the UE supports *prs-ProcessingCapabilityBandList-r16* defined in TS 37.355 [22].  A UE supporting this feature shall also indicate support of *prs-ProcessingCapabilityOutsideMGinPPW-r17*.  NOTE 2: Type 1A refers to the determination of prioritization between DL PRS and other DL signals/channels in all OFDM symbols within the PRS processing window. The DL signals/channels from all DL CCs (per UE) are affected across LTE and NR.  NOTE 3: Within a PRS processing window, UE measurement is inside the active DL BWP with PRS having the same numerology as the active DL BWP.  NOTE 4: Support of configuration of PRS processing window in RRC and support of using DL MAC CE to activate/deactivate the PRS processing window for PRS measurements is part of the feature.  NOTE 5: When the UE determines higher priority for other DL signals/channels over the DL-PRS measurement/processing, the UE is not expected to measure/process DL-PRS. | Band | No | N/A | N/A |
| ***prs-ProcessingWindowType1B-r17***  Indicates whether the UE supports PRS processing Type 1B, subject to the UE determining that DL PRS to be higher priority for PRS measurement outside MG and in a PRS processing window and the priority handling options of PRS as follows:  - Option 1: Support of "st1" and "st3" defined in clause 5.1.6.5 of TS 38.214 [12].  - Option 2: Support of "st1", "st2", and "st3" defined in clause 5.1.6.5 of TS 38.214 [12].  NOTE 1: Void.  - Option 3: Support of "st1" only defined in clause 5.1.6.5 of TS 38.214 [12].  The UE can include this field only if the UE supports *prs-ProcessingCapabilityBandList-r16* defined in TS 37.355 [22].  A UE supporting this feature shall also indicate support of *prs-ProcessingCapabilityOutsideMGinPPW-r17*.  NOTE 2: Type 1B refers to the determination of prioritization between DL PRS and other DL signals/channels in all OFDM symbols within the PRS processing window. The DL signals/channels from a certain band are affected.  NOTE 3: Within a PRS processing window, UE measurement is inside the active DL BWP with PRS having the same numerology as the active DL BWP.  NOTE 4: Support of configuration of PRS processing window in RRC and support of using DL MAC CE to activate/deactivate the PRS processing window for PRS measurements is part of the feature.  NOTE 5: When the UE determines higher priority for other DL signals/channels over the DL-PRS measurement/processing, the UE is not expected to measure/process DL-PRS. | Band | No | N/A | N/A |
| ***prs-ProcessingWindowType2-r17***  Indicates whether the UE supports PRS processing Type 2, subject to the UE determining that DL PRS to be higher priority for PRS measurement outside MG and in a PRS processing window and the priority handling options of PRS as follows:  - Option 1: Support of "st1" and "st3" defined in clause 5.1.6.5 of TS 38.214 [12].  - Option 2: Support of "st1", "st2", and "st3" defined in clause 5.1.6.5 of TS 38.214 [12].  NOTE 1: Void.  - Option 3: Support of "st1" only defined in clause 5.1.6.5 of TS 38.214 [12].  The UE can include this field only if the UE supports *prs-ProcessingCapabilityBandList-r16* defined in TS 37.355 [22].  A UE supporting this feature shall also indicate support of *prs-ProcessingCapabilityOutsideMGinPPW-r17*.  NOTE 2: Type 2 refers to the determination of prioritization between DL PRS and other DL signals/channels only in DL PRS symbols within the PRS processing window.  NOTE 3: Within a PRS processing window, UE measurement is inside the active DL BWP with PRS having the same numerology as the active DL BWP.  NOTE 4: Support of configuration of PRS processing window in RRC and support of using DL MAC CE to activate/deactivate the PRS processing window for PRS measurements is part of the feature.  NOTE 5: When the UE determines higher priority for other DL signals/channels over the DL-PRS measurement/processing, the UE is not expected to measure/process DL-PRS. | Band | No | N/A | N/A |
| ***ptrs-DensityRecommendationSetDL***  For each supported sub-carrier spacing, indicates preferred threshold sets for determining DL PTRS density. It is mandated for FR2. For each supported sub-carrier spacing, this field comprises:  - two values of *frequencyDensity*;  - three values of *timeDensity*. | Band | CY | N/A | N/A |
| ***ptrs-DensityRecommendationSetUL***  For each supported sub-carrier spacing, indicates preferred threshold sets for determining UL PTRS density. For each supported sub-carrier spacing, this field comprises:  - two values of *frequencyDensity*;  - three values of *timeDensity*;  - five values of *sampleDensity*. | Band | No | N/A | N/A |
| ***pucch-RepetitionDynamicIndicationSFN-r18***  Indicates whether the UE supports STx2P SFN PUCCH scheme together with *pucch-Repetition-F0-1-2-3-4-DynamicIndication-r17*.  A UE supporting this feature shall also indicate support of *pucch-SingleDCI-STx2P-SFN-r18* and *slotBasedDynamicPUCCH-Rep-r17*. | Band | No | N/A | FR2 only |
| ***pucch-Repetition-F0-2-r17***  Indicates whether the UE supports transmission of a PUCCH format 0 and 2 over multiple slots with the repetition factor 2, 4 or 8.  A UE supporting this feature shall also indicate support of *pucch-Repetition-F1-3-4*. | Band | No | N/A | N/A |
| ***pucch-SpatialRelInfoMAC-CE***  Indicates whether the UE supports indication of *PUCCH-spatialrelationinfo* by a MAC CE per PUCCH resource. It is mandatory for FR2 and optional for FR1. | Band | CY | N/A | N/A |
| ***pusch-256QAM***  Indicates whether the UE supports 256QAM modulation scheme for PUSCH as defined in 6.3.1.2 of TS 38.211 [6]. | Band | No | N/A | N/A |
| ***pusch-CB-2PTRS-SingleDCI-STx2P-SDM-r18***  Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SDM scheme for PUSCH codebook.  A UE supporting this feature shall also indicate support of *pusch-CB-SingleDCI-STx2P-SDM-r18*. | Band | No | N/A | FR2 only |
| ***pusch-CB-2PTRS-SingleDCI-STx2P-SFN-r18***  Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SFN scheme for PUSCH codebook.  A UE supporting this feature shall also indicate support of *pusch-CB-SingleDCI-STx2P-SFN-r18*. | Band | No | N/A | FR2 only |
| ***pusch-NonCB-2PTRS-SingleDCI-STx2P-SDM-r18***  Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SDM scheme for PUSCH—noncodebook.  A UE supporting this feature shall also indicate support of *pusch-NonCB-SingleDCI-STx2P-SDM-r18*. | Band | No | N/A | FR2 only |
| ***pusch-NonCB-2PTRS-SingleDCI-STx2P-SFN-r18***  Indicates whether the UE supports 2 PTRS ports for single-DCI based STx2P SFN scheme for PUSCH—noncodebook.  A UE supporting this feature shall also indicate support of *pusch-NonCB-SingleDCI-STx2P-SFN-r18*. | Band | No | N/A | FR2 only |
| ***pusch-NonCB-SingleDCI-STx2P-SDM-CSI-RS-SRS-r18***  Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for non-codebook based STx2P SDM scheme for PUSCH. This capability comprises:  *-* *maxNumberPeriodicSRS-Resource-PerBWP-r18* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP.  *-* *maxNumberAperiodicSRS-Resource-PerBWP-r18* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP.  *-* *maxNumberSemiPersistentSRS-ResourcePerBWP-r18* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP.  *-* *valueY-SRS-ResourceAssociate-r18* indicates UE can process (Y) SRS resources associated with first and second CSI-RS resources simultaneously in a CC. Includes P/SP/A SRS  *-* *valueX-CSI-RS-ResourceAssociate-r18* indicates UE can process up to (X) CSI-RS resources associated with SRS for non-codebook-based transmission simultaneously  A UE supporting this feature shall also indicate support of *srs-AssocCSI-RS* and *pusch-NonCB-SingleDCI-STx2P-SDM-r18*. | Band | No | N/A | FR2 only |
| ***pusch-NonCB-SingleDCI-STx2P-SFN-CSI-RS-SRS-r18***  Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for non-codebook based STx2P SFN scheme for PUSCH. This capability comprises:  *-* *maxNumberPeriodicSRS-Resource-PerBWP-r18* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP.  *-* *maxNumberAperiodicSRS-Resource-PerBWP-r18* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP.  *-* *maxNumberSemiPersistentSRS-ResourcePerBWP-r18* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP.  *-* *valueY-SRS-ResourceAssociate-r18* indicates UE can process (Y) SRS resources associated with first and second CSI-RS resources simultaneously in a CC. Includes P/SP/A SRS  *-* *valueX-CSI-RS-ResourceAssociate-r18* indicates UE can process up to (X) CSI-RS resources associated with SRS for non-codebook-based transmission simultaneously  A UE supporting this feature shall also indicate support of *srs-AssocCSI-RS*  and *pusch-NonCB-SingleDCI-STx2P-SFN-r18*. | Band | No | N/A | FR2 only |
| ***pusch-RepetitionMsg3-r17***  Indicates whether the UE supports repetition of PUSCH transmission scheduled by RAR UL grant and DCI format 0\_0 with CRC scrambled by TC-RNTI. | Band | No | N/A | N/A |
| ***pusch-RepetitionMultiSlots-v1650***  Indicates whether the UE supports transmitting PUSCH scheduled by DCI format 0\_1 when configured with *pusch-AggregationFactor* > 1, as defined in clause 6.1.2.1 of TS 38.214 [12]. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *pusch-RepetitionMultiSlots-r16* applies. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  The UE only includes *pusch-RepetitionMultiSlots-v1650* if *pusch-RepetitionMultiSlots* is absent. | Band | Yes | N/A | N/A |
| ***pusch-RepetitionTypeA-v16c0***  Indicates whether the UE supports the dynamic indication of the number of repetitions for PUSCH transmission as specified in TS 38.214 [12], clause 6.1.2.1. Support of this field is reported for shared spectrum channel access and non-shared spectrum channel access, respectively. UE indicating support of this feature shall support of at least one of *type2-PUSCH-RepetitionMultiSlots* and *pusch-RepetitionMultiSlots* for shared spectrum and non-shared spectrum respectively.  UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively.  The UE only includes *pusch-RepetitionTypeA-v16c0* if *pusch-RepetitionTypeA-r16* is absent. | Band | No | N/A | N/A |
| ***pusch-TransCoherence***  Defines support of the uplink codebook subset by the UE for UL precoding for PUSCH transmission as described in clause 6.1.1.1 of TS 38.214 [12]. UE indicated support of partial coherent codebook subset shall also support non-coherent codebook subset. UE indicated support of full coherent codebook subset shall also support partial and non-coherent codebook subset. | Band | No | N/A | N/A |
| ***puschTypeA-RepetitionsAvailSlot-r17***  Indicates whether UE supports dynamic and configured grant PUSCH repetitions based on available slots. Transmission occasions for the repetitions for dynamic and configured grant PUSCH are determined on the basis of available slots.  A UE that indicates support of this feature shall support *type1-PUSCH-RepetitionMultiSlots, type2-PUSCH-RepetitionMultiSlots* or *pusch-RepetitionMultiSlots.* | Band | No | N/A | N/A |
| ***rach-EarlyTA-Measurement-r18***  Indicates the maximum number of candidate cells for TA acquisition based on PDCCH ordered CFRA procedure before receiving cell switch command MAC-CE. Power ramping for PRACH retransmission based on PDCCH order indication. UE also supports dropping the serving cell UL to handle the overlap between UL transmission on serving cell(s) and PRACH on candidate cell(s).  A UE supporting this feature shall also indicate support of *ta-IndicationCellSwitch-r18* and at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*.  For cross-band operation, the capability refers to the source band. | Band | No | N/A | N/A |
| ***rach-LessHandoverCG-r18***  Indicates whether the UE supports RACH-less handover with configured grant for SpCell, as specified in TS 38.321 [8]. In this release, FR1-FR2 and FDD-TDD RACH-less handovers with configured grant are not supported.  For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands.  For NTN bands, a UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.  If an NTN UE indicates the support of both *timeBasedCondHandover-r17* and *rach-LessHandoverCG-r18*, the UE supports time based RACH-less CHO with configured grant. | Band | No | N/A | N/A |
| ***rach-LessHandoverDG-r18***  Indicates whether the UE supports RACH-less handover with dynamic grant for SpCell, as specified in TS 38.321 [8]. In this release, FR1-FR2 and FDD-TDD RACH-less handovers with dynamic grant are not supported.  For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands.  For NTN bands, a UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*.  If an NTN UE indicates the support of both *timeBasedCondHandover-r17* and *rach-LessHandoverDG-r18*, the UE supports time based RACH-less CHO with dynamic grant. | Band | No | N/A | N/A |
| ***rateMatchingLTE-CRS***  Indicates whether the UE supports receiving PDSCH with resource mapping that excludes the REs determined by the higher layer configuration LTE-carrier configuring common RS, as specified in TS 38.214 [12]. | Band | Yes | N/A | N/A |
| ***releaseSPS-MulticastWithCS-RNTI-r17***  Indicates whether UE supports unicast PDCCH scrambled with CS-RNTI to release SPS group-common PDSCH. For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE that indicates the support of this feature shall indicate support of *sps-Multicast-r17* and *sps-r16.* | Band | No | N/A | N/A |
| ***re-LevelRateMatchingForMulticast-r17***  Indicates whether the UE supports group-common PDSCH RE-level rate matching for multicast, comprised of the following functional components:  - Supports SP ZP-CSI-RS for group-common PDSCH RE-mapping patterns;  - Supports P ZP-CSI-RS for group-common PDSCH RE-mapping patterns;  - Supports *p-ZP-CSI-RS-ResourceSet* configured in *PDSCH-Config-Multicast* same as or different from the *p-ZP-CSI-RS-ResourceSet* configured in *PDSCH-Config*;  - Supports AP ZP-CSI-RS for group-common PDSCH RE-mapping patterns.  For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*. A UE supporting this feature in FR1 bands shall also indicate support of *pdsch-RE-MappingFR1-PerSymbol* or *pdsch-RE-MappingFR1-PerSlot*. A UE supporting this feature in FR2 bands shall also indicate support of *pdsch-RE-MappingFR2-PerSymbol* or *pdsch-RE-MappingFR2-PerSlot*.  NOTE: The total number of semi-persistent ZP-CSI-RS-ResourceSet that a UE can be configured with is the same as for unicast in Rel-16. | Band | No | N/A | N/A |
| ***rlm-BM-BFD-CSI-RS-OutsideActiveBWP-r18***  Indicates whether the UE supports RLM/BM/BFD measurements based on CSI-RS, when CD-SSB is outside active DL BWP.  Bandwidth of UE-specific RRC configured BWP may not include bandwidth of the CORESET#0 (if CORESET#0 is present) and CD-SSB for PCell/PSCell (if configured) and bandwidth of the UE-specific RRC configured BWP may not include CD-SSB for SCell.  The UE also supports CSI-RS within active DL BWP for RLM/BM/BFD measurements can be QCLed with CD-SSB outside active DL BWP but within the bandwidth of the corresponding carrier(s).  The UE supporting this feature shall also indicate support of *csi-RS-RLM, beamManagementSSB-CSI-RS* and *maxNumberCSI-RS-BFD*,*maxNumberSSB-BFD*, *maxNumberCSI-RS-SSB-CBD*. The UEs indicating the support of this feature group shall not indicate the support of *bwp-WithoutRestriction*.  NOTE: The CD-SSB is still within the bandwidth of the carrier configured by *SCS-SpecificCarrier* of *downlinkChannelBW-PerSCS-List* in *ServingCellConfig*.  It is not applicable to RedCap or eRedCap UEs. | Band | No | N/A | N/A |
| ***rlm-Relaxation-r17***  Indicates whether the UE supports RLM relaxation criteria and requirement as specified in TS 38.133 [5]. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  UE indicating support of this feature shall also indicate support of *ssb-RLM* and/or *csi-RS-RLM.* | Band | No | N/A | N/A |
| ***searchSpaceSetGrp-switchCap2-r17***  Indicates whether UE supports search space set group switching capability 2 for FR1 according to Table 10.4-1 of TS 38.213 [11] for SSSG switching.  UE indicating support of this feature shall also indicate support of *sssg-Switching-1bitInd-r17*.  NOTE: For UE supporting this feature and also *sssg-Switching-1BitInd-r17*, *sssg-Switching-2BitInd-r17*, and/or *pdcch-SkippingWithSSSG-r17*, search space set group switching Capability-2 is applied to *sssg-Switching-1BitInd-r17*, *sssg-Switching-2BitInd-r17*, and/or *pdcch-SkippingWithSSSG-r17*. | Band | No | N/A | FR1 only |
| ***semi-PersistentL1-SINR-Report-PUCCH-r16***  Indicates whether the UE supports semi-persistent L1-SINR report on PUCCH. The UE indicating support of this feature shall include at least one of the following capabilities:  - *supportReportFormat1-2OFDM-syms-r16* indicates support of report on PUCCH formats over 1 – 2 OFDM symbols once per slot (or piggybacked on a PUSCH)  - *supportReportFormat4-14OFDM-syms-r16* indicates support of report on PUCCH formats over 4 – 14 OFDM symbols once per slot (or piggybacked on a PUSCH).  The UE indicating support of this feature shall also indicate support of *ssb-csirs-SINR-measurement-r16.* | Band | No | N/A | N/A |
| ***semi-PersistentL1-SINR-Report-PUSCH-r16***  Indicates whether the UE supports semi-persistent L1-SINR report on PUSCH. The UE indicating support of this feature shall also indicate support of *ssb-csirs-SINR-measurement-r16.* | Band | No | N/A | N/A |
| ***separateCRS-RateMatching-r16***  Indicates whether the UE supports rate match around configured CRS patterns which is associated with *CORESETPoolIndex* (if configured) and are applied to the PDSCH scheduled with a DCI detected on a CORESET with the same value of *CORESETPoolIndex*. The UE that indicates support of this feature shall support *multiDCI-MultiTRP-r16* and *overlapRateMatchingEUTRA-CRS-r16.* This is only applicable for 15kHz SCS. | Band | No | N/A | FR1 only |
| ***sfn-DefaultDL-BeamSetup-r17***  Indicates whether the UE supports the following features:  - For FR2 only, PDSCH reception using default beam for enhanced SFN scheme when PDSCH is scheduled with offset less than threshold.  - For FR1 and FR2, PDSCH reception using default beam for enhanced SFN scheme when TCI field is not present in DCI format 1\_0/1\_1/1\_2 when PDSCH is scheduled with offset equal or larger than the threshold, if applicable.  - For FR2 only, aperiodic CSI-RS reception using default beam for enhanced SFN scheme when scheduling offset is less than threshold.  The UE indicating support of this feature shall also indicate *sfn-schemeA-r17* or *sfn-schemeB-r17.* | Band | No | N/A | N/A |
| ***sfn-DefaultUL-BeamSetup-r17***  Indicates whether the UE supports the following features:  - Support of single-TRP PUCCH transmission using default beam when enhanced SFN PDCCH transmission scheme is configured.  - Support of single-TRP PUSCH transmission using default beam when enhanced SFN PDCCH transmission scheme is configured.  - Support of single-TRP SRS resource transmission using default beam when enhanced SFN PDCCH transmission scheme is configured.  The UE indicating support of this feature shall also indicate *sfn-schemeA-r17* or *sfn-schemeB-r17* or *sfn-SchemeA-PDCCH-only-r17*. | Band | No | N/A | FR2 only |
| ***sfn-ImplicitRS-twoTCI-r17***  Indicates whether the UE supports RS(s) with two TCI states configured implicitly for beam failure detection enhancement for HST. | Band | No | N/A | N/A |
| ***sfn-QCL-TypeD-Collision-twoTCI-r17***  Indicates whether the UE supports identification of two QCL-TypeD properties for multiple overlapping CORESETs when a CORESET is activated with two TCI states which overlaps with another CORESET. | Band | No | N/A | N/A |
| ***sfn-SimulTwoTCI-AcrossMultiCC-r17***  Indicates whether the UE supports simultaneous activation of two TCI states for CORESETs with the same CORESET ID in all BWPs across a set of configured component carriers by single MAC-CE. The UE indicating support of this feature shall also indicate *sfn-schemeA-r17* or *sfn-schemeB-r17* or *sfn-SchemeA-PDCCH-only-r17*.  The UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively. | Band | No | N/A | N/A |
| ***simul-SpatialRelationUpdatePUCCHResGroup-r16***  Indicates whether the UE supports PUCCH resource groups per BWP for simultaneous spatial relation update. The UE indicating support of this also indicates the capabilities of supported SRS resources and maximum supported spatial relations for the supported bands using *supportedSRS-Resources, maxNumberConfiguredSpatialRelations* and *pucch-SpatialRelInfoMAC-CE*. | Band | No | N/A | N/A |
| ***simulConfigDMRS-DCI-1-3-r18***  Indicates whether the UE supports to be configured with both Rel-18 enhanced DL DMRS and DCI format 1\_3.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* and at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*. | Band | No | N/A | N/A |
| ***simulSRS-MIMO-TransWithinBand-r16***  Indicates the number of SRS resources for positioning and SRS resource for MIMO on a symbol within a band across multiple CCs. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. | Band | No | N/A | N/A |
| ***simulSRS-TransWithinBand-r16***  Indicates the number of SRS resources for positioning on a symbol within a band across multiple CCs. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. | Band | No | N/A | N/A |
| ***simultaneousCSI-SubReportsPerCC-r18***  Indicates the number of CSI report(s) for which the UE can measure and process reference signals simultaneously in a CC of the band for which this capability is provided. The CSI report comprises periodic, semi-persistent and aperiodic CSI and any latency classes and codebook types, and includes the beam report, and CSI report without sub-configurations plus CSI sub-report across CSI reports.  NOTE 1: UE shall report the value in this capability being equal to or larger than that in *simultaneousCSI-ReportsPerCC*.  NOTE 2: UE supporting at least one of *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18,* and *powerAdaptation-CSI-FeedbackPUCCH-r18* shall report this feature.  A UE supporting this feature shall also indicate support of *csi-ReportFramework*. | Band | No | N/A | N/A |
| ***simultaneousReceptionDiffTypeD-r16***  Indicates whether the UE supports simultaneous reception with different QCL Type D reference signal as specified in TS 38.213 [11]. | Band | No | N/A | FR2 only |
| ***simultaneousReceptionTwoQCL-r18***  Indicates whether the UE supports enhanced RF requirement to support FR2-1 PC6 UEs with simultaneous DL signals reception with two different QCL TypeD RSs and enhanced RRM requirement to support FR2-1 PC6 UEs with simultaneous DL signals reception associated with two different QCL TypeD RSs.  This feature is applied when *highSpeedDeploymentTypeFR2-r17* is configured by network as bidirectional.  A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*. | Band | No | N/A | FR2 only |
| ***simulTX-SRS-AntSwitchingIntraBandUL-CA-r16***  Indicates whether the UE support simultaneous transmission of SRS on different CCs for intra-band UL CA. The UE indicating support of this feature shall include at least one of the following capabilities:  - *supportSRS-xTyR-xLessThanY-r16* indicates support transmission of SRS for xTyR (x<y) based antenna switching and SRS for CB/NCB/BM on different CCs in overlapped symbol(s) for intra-band UL CA.  - *supportSRS-xTyR-xEqualToY-r16* indicates support transmission of SRS for xTyR (x=y) based antenna switching and SRS for CB/NCB/BM on different CCs in overlapped symbol(s) for intra-band UL CA.  - *supportSRS-AntennaSwitching-r16* Indicates whether the UE support simultaneous transmission of SRS for antenna switching on different CCs in overlapped symbol(s) for intra-band UL CA.  NOTE: For simultaneously antenna switching and antenna switching SRS in intra-band CAs with bands whose UL are switched together according to the reported *supportSRS-AntennaSwitching-r16*, the UE expects the same configuration of xTyR across the different CCs and the SRS resources overlapped in time domain from UE perspective are from the same UE antenna ports. | Band | No | N/A | N/A |
| ***sn-InitiatedCondPSCellChangeNRDC-r17***  Indicates whether the UE supports SN initiated inter-SN conditional PSCell change in NR-DC, which is configured by NR *conditionalReconfiguration* using SN configured measurement as triggering condition. The UE supporting this feature shall also support 2 trigger events for same execution condition in SN initiated inter-SN conditional PSCell change in NR-DC. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands respectively. | Band | No | N/A | N/A |
| ***spatialAdaptation-CSI-Feedback-r18***  Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for periodic CSI reporting and single-panel type 1 codebook. This capability signalling comprises the following parameters:  - *csiFeedbackType-r18* indicates CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for periodic CSI reporting. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-Feedback-r18* and *jointPowerSpatialAdaptation-r18*;  NOTE 1: SD-type1 refers to all sub-configurations that contain one port subset.  NOTE 2: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs.  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *totalNumberCSI-Reporting-r18* indicates total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP.  NOTE 3: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 4: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 5: If a UE reports both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*, then the supported total number of periodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across periodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-Feedback-r18* and *powerAdaptation-CSI-Feedback-r18*.  NOTE 6: If a UE reports *both* for *csiFeedbackType-r18* and if the UE is configured with both CSI report setting(s) with sub-configurations corresponding to SD-type 1 and CSI report setting(s) with sub-configurations corresponding to SD-type 2, the supported total number of NZP-CSI-RS resources/ports for *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18* in *spatialAdaptation-CSI-Feedback-r18* and *maxNumberCSI-ResourceAcrossCC* and *maxNumberTotalCSI-ResourceAcrossCC-r18* in *spatialAdaptation-CSI-FeedbackPerBC-r18* is determined by the minimum of the reported values between SD-type 1 and SD-type 2.  NOTE 7: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 8: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *spatialAdaptation-CSI-FeedbackPerBC-r18*. | Band | No | N/A | N/A |
| ***spatialAdaptation-CSI-FeedbackAperiodic-r18***  Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for aperiodic CSI reporting and single-panel type 1 codebook. This capability signalling comprises the following parameters:  - *csiFeedbackType-r18* indicates CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for periodic CSI reporting. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-FeedbackAperiodic-r18* and *jointPowerSpatialAdaptation-r18*;  NOTE 1: SD-type1 refers to all sub-configurations that contain one port subset.  NOTE 2: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs.  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration.  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *totalNumberCSI-Reporting-r18* indicates total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP.  NOTE 3: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 4: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 5: If a UE reports both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, and if the UE is configured with CSI report settings with sub-configurations corresponding to both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*, then the supported total number of aperiodic CSI reporting settings without sub-configurations plus the total number of sub-configurations across aperiodic CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from both *spatialAdaptation-CSI-FeedbackAperiodic-r18* and *powerAdaptation-CSI-FeedbackAperiodic-r18*.  NOTE 6: If a UE reports *both* for *csiFeedbackType-r18* and if the UE is configured with both CSI report setting(s) with sub-configurations corresponding to SD-type 1 and CSI report setting(s) with sub-configurations corresponding to SD-type 2, the supported total number of NZP-CSI-RS resources/ports for *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18* in *spatialAdaptation-CSI-Feedback-r18* and *maxNumberCSI-ResourceAcrossCC* and *maxNumberTotalCSI-ResourceAcrossCC-r18* in *spatialAdaptation-CSI-FeedbackPerBC-r18* is determined by the minimum of the reported values between SD-type 1 and SD-type 2.  NOTE 7: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 8: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework* and *spatialAdaptation-CSI-FeedbackAperiodicPerBC-r18*. | Band | No | N/A | N/A |
| ***spatialAdaptation-CSI-FeedbackPUCCH-r18***  Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUCCH (or piggybacked on PUSCH) and single-panel type 1 codebook. This capability signalling comprises the following parameters:  - *csiFeedbackType-r18* indicates the support of CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for semi-persistent CSI reporting on PUCCH. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-FeedbackPUCCH-r18* and *jointPowerSpatialAdaptation-r18*;  NOTE 3: SD-type1 refers to all sub-configurations that contain one port subset.  NOTE 4: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs.  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration.  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per CC for SD-type 1 and/or SD-type 2.  - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP.  NOTE 5: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 6: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 7: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported features, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset.  NOTE 8: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 9: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework, sp-CSI-ReportPUCCH* and *spatialAdaptation-CSI-FeedbackPUCCH-PerBC-r18.*  NOTE 1: Void  NOTE 2: Void | Band | No | N/A | N/A |
| ***spatialAdaptation-CSI-FeedbackPUSCH-r18***  Indicates whether the UE supports spatial domain adaptation with CSI feedback based on CSI report sub-configuration(s) for semi-persistent CSI reporting on PUSCH and single-panel type 1 codebook. This capability signalling comprises the following parameters:  - *csiFeedbackType-r18* indicates CSI feedback based on CSI report sub-configuration(s), each containing one port subset configuration/list of CSI-RS resource IDs for semi-persistent CSI reporting on PUSCH. Value *sdType1* indicates support of SD-type1, value *sdType2* indicates support of SD-type2, value *both* indicates support of both SD-type1 and SD-type2. If a UE reports *sdType1* or *both*, the UE shall also indicate support of *powerAdaptation-CSI-FeedbackPUSCH-r18* and *jointPowerSpatialAdaptation-r18*;  NOTE 1: SD-type1 refers to all sub-configurations that contain one port subset.  NOTE 2: SD-type2 refers to all sub-configurations that contain list of CSI-RS resource IDs.  - *maxNumberLmax-r18* indicates the max number of sub-configurations Lmax in one CSI report configuration;  - *subReportCSI-r18* indicates N number of report of CSI sub-report(s) included in one SP-CSI report where each CSI sub-report corresponds to one sub-configuration.  - *maxNumberCSI-ResourcePerCC-r18* indicates the maximum number of simultaneous NZP-CSI-RS resources per CC.  - *maxNumberTotalCSI-ResourcePerCC-r18* indicates the maximum number of total CSI-RS ports in simultaneous NZP-CSI-RS resources per.  - *totalNumberCSI-Reporting-r18* indicates total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP.  NOTE 3: For *maxNumberCSI-ResourcePerCC-r18* and *maxNumberTotalCSI-ResourcePerCC-r18*, NZP-CSI-RS resource and CSI-RS ports are counted for reporting settings with and without sub-configurations.  NOTE 4: If a UE reports more than one capability from *spatialAdaptation-CSI-Feedback-r18, spatialAdaptation-CSI-FeedbackPUSCH-r18, spatialAdaptation-CSI-FeedbackAperiodic-r18, spatialAdaptation-CSI-FeedbackPUCCH-r18, powerAdaptation-CSI-Feedback-r18, powerAdaptation-CSI-FeedbackPUSCH-r18, powerAdaptation-CSI-FeedbackAperiodic-r18, powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the above reported features, then the supported maximum of NZP-CSI-RS resources/ports across all periodic, semi-persistent, aperiodic CSI report settings with sub-configurations corresponding to all of spatial and power domain adaptations and without sub-configurations is determined by the minimum of the reported values from that subset.  NOTE 5: If a UE reports more than one capability from *spatialAdaptation-CSI-FeedbackPUSCH-r18*, *spatialAdaptation-CSI-FeedbackPUCCH-r18*, *powerAdaptation-CSI-FeedbackPUSCH-r18* and *powerAdaptation-CSI-FeedbackPUCCH-r18* and if the UE is configured with CSI report settings with sub-configurations corresponding to a subset of the reported capabilities, then the supported total number of semi-persistent CSI reporting settings without sub-configurations plus the total number of sub-configurations across semi-persistent CSI report settings with sub-configurations per BWP is determined by the minimum of the reported values from that subset.  NOTE 6: If CSI report configuration in active BWP of a CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports per CC are used for the CC instead of values reported in *csi-RS-IM-ReceptionForFeedback*. If CSI report configuration in active BWP of any CC includes report setting(s) with sub-configurations, values reported in this capability for the number of simultaneous NZP-CSI-RS resources and ports across all CCs are used instead of values reported in *csi-RS-IM-ReceptionForFeedback*.  NOTE 7: For *totalNumberCSI-Reporting-r18*, if CSI report configuration in a BWP includes report setting(s) with sub-configurations, a value reported in this capability for the number of CSI reporting settings is used for the BWP instead of a value reported in *csi-ReportFramework*.  A UE indicating support of this feature shall also indicate support of *csi-ReportFramework*, *sp-CSI-ReportPUSCH* and *spatialAdaptation-CSI-FeedbackPUSCH-PerBC-r18.* | Band | No | N/A | N/A |
| ***spatialRelations, spatialRelations-v1640***  Indicates whether the UE supports spatial relations. The capability signalling comprises the following parameters.  - *maxNumberConfiguredSpatialRelations* indicates the maximum number of configured spatial relations per CC for PUCCH and SRS. It is not applicable to FR1 and applicable to FR2 only. The UE is mandated to report 16 or higher values. *maxNumberConfiguredSpatialRelations-v1640* indicates the maximum number of configured spatial relations per CC for PUCCH and SRS with UE supporting the configuration of maximum 64 PUCCH spatial relations per BWP per CC;  - *maxNumberActiveSpatialRelations* indicates the maximum number of active spatial relations with regarding to PUCCH and SRS for PUSCH, per BWP per CC. It is not applicable to FR1 and applicable and mandatory to report one or higher value for FR2 only;  - *additionalActiveSpatialRelationPUCCH* indicates support of one additional active spatial relation for PUCCH. It is mandatory with capability signalling if *maxNumberActiveSpatialRelations* is set to n1;  - *maxNumberDL-RS-QCL-TypeD* indicates the maximum number of downlink RS resources used for QCL type D in the active TCI states and active spatial relation information, which is optional.  The UE is mandated to report *spatialRelations* for FR2. if *maxNumberConfiguredSpatialRelations-v1640* is reported, UE shall report value *n96* in *maxNumberConfiguredSpatialRelations*. | Band | FD | N/A | FD |
| ***spatialRelationsSRS-Pos-r16***  Indicates whether the UE supports spatial relations for SRS for positioning. The capability signalling comprises the following parameters.  - *spatialRelation-SRS-PosBasedOnSSB-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the serving cell in the same band. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field;  - *spatialRelation-SRS-PosBasedOnCSI-RS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on CSI-RS from the serving cell in the same band. The UE can include this field only if the UE supports *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*. Otherwise, the UE does not include this field;  - *spatialRelation-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the serving cell in the same band. The UE can include this field only if the UE supports any of DL PRS Resources for DL AoD, DL PRS Resources for DL-TDOA or DL PRS Resources for Multi-RTT defined in TS 37.355 [22], or *srs-PosResources-r16*. Otherwise, the UE does not include this field;  - *spatialRelation-SRS-PosBasedOnSRS-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SRS in the same band. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field;  - *spatialRelation-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE can include this field only if the UE supports *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*. Otherwise, the UE does not include this field;  - *spatialRelation-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE can include this field only if the UE supports *spatialRelation-SRS-PosBasedOnPRS-Serving-r16*. Otherwise, the UE does not include this field;  NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell. | Band | No | N/A | FR2 only |
| ***spatialRelationsSRS-PosRRC-Inactive-r17***  Indicates whether the UE supports spatial relations for SRS for positioning in RRC\_INACTIVE. The capability signalling comprises the following parameters:  - *spatialRelation-SRS-PosBasedOnSSB-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the serving cell in the same band. The UE indicating support of this feature shall also indicate support of *srs-PosResourcesRRC-Inactive-r17*;  - *spatialRelation-SRS-PosBasedOnCSI-RS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on CSI-RS from the serving cell in the same band. The UE indicating support of this feature shall also indicate support of *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*;  - *spatialRelation-SRS-PosBasedOnPRS-Serving-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the serving cell in the same band. The UE indicating support of this feature shall also indicate support any of DL PRS Resources for DL AoD, DL PRS Resources for DL-TDOA or DL PRS Resources for Multi-RTT defined in TS 37.355 [22], or *srs-PosResourcesRRC-Inactive-r17*;  - *spatialRelation-SRS-PosBasedOnSRS-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SRS in the same band. The UE indicating support of this feature shall also indicate support of *srs-PosResourcesRRC-Inactive-r17*;  - *spatialRelation-SRS-PosBasedOnSSB-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on SSB from the neighbouring cell in the same band. The UE indicating support of this feature shall also indicate support of *spatialRelation-SRS-PosBasedOnSSB-Serving-r16*;  - *spatialRelation-SRS-PosBasedOnPRS-Neigh-r16* indicates whether the UE supports spatial relation for SRS for positioning based on PRS from the neighbouring cell in the same band. The UE indicating support of this feature shall also indicate support of *spatialRelation-SRS-PosBasedOnPRS-Serving-r16*.  NOTE: A PRS from a PRS-only TP is treated as PRS from a non-serving cell. | Band | No | N/A | FR2 only |
| ***sp-BeamReportPUCCH***  Indicates support of semi-persistent 'CRI/RSRP' or 'SSBRI/RSRP' reporting using PUCCH formats 2, 3 and 4 in one slot. | Band | No | N/A | N/A |
| ***sp-BeamReportPUSCH***  Indicates support of semi-persistent 'CRI/RSRP' or 'SSBRI/RSRP' reporting on PUSCH. | Band | No | N/A | N/A |
| ***spCell-TAG-Ind-r18***  Indicates whether the UE supports indicating one of two TAG IDs configured in the SpCell via absolute TA command MAC CE.  A UE that indicates support of this feature shall indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18* or *multiDCI-InterCellMultiTRP-TwoTA-r18*. | Band | No | N/A | N/A |
| ***sps-MulticastDCI-Format4-2-r17***  Indicates whether the UE supports transmission and retransmission scheduled by DCI format 4\_2 with CRC scrambled with G-CS-RNTI for multicast SPS scheduling.  A UE that indicates support of this feature shall indicate support of *sps-Multicast-r17*. | Band | No | N/A | N/A |
| ***sps-MulticastMultiConfig-r17***  Indicates whether the UE supports up to 8 SPS group-common PDSCH configurations per CFR for multicast on PCell. The value indicates the maximum number of activated SPS group-common PDSCH configurations per CFR for multicast.  The total number of SPS configurations for both multicast and unicast is no larger than 8 in a BWP of a serving cell. The total number of SPS configurations for both multicast and unicast in a cell group is no larger than 32.  For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE that indicates support of this feature shall indicate support of *sps-Multicast-r17*. | Band | No | N/A | N/A |
| ***sps-r16***  Indicates whether the UE support of up to 8 configured SPS configurations in a BWP of a serving cell and up to 32 configured SPS configurations in a cell group. This field includes the following parameters:  - *maxNumberConfigsPerBWP-r16* indicates the maximum number of active SPS configurations in a BWP of a serving cell.  - *maxNumberConfigsAllCC-r16* indicates the maximum number of active SPS configurations across all serving cells in a MAC entity, and across MCG and SCG in case of NR-DC.  The UE can include this feature only if the UE indicates support of *downlinkSPS*.  NOTE:  - For all the reported bands in FR1, a same X1 value is reported for *maxNumberConfigsAllCC-r16*. For all the reported bands in FR2, a same X2 value is reported for *maxNumberConfigsAllCC-r16*.  - The total number of active SPS configurations across all serving cells in FR1 is no greater than X1.  - The total number of active SPS configurations across all serving cells in FR2 is no greater than X2.  - If the CA have some serving cell(s) in FR1 and some serving cell(s) in FR2, the total number of active SPS configurations across all serving cells is no greater than max(X1, X2). | Band | No | N/A | N/A |
| ***srs-AssocCSI-RS***  Parameters for the calculation of the precoder for SRS transmission based on channel measurements using associated NZP CSI-RS resource (srs-AssocCSI-RS) as described in clause 6.1.1.2 of TS 38.214 [12]. UE supporting this feature shall also indicate support of non-codebook based PUSCH transmission.  This capability signalling includes list of the following parameters:  - *maxNumberTxPortsPerResource* indicates the maximum number of Tx ports in a resource;  - *maxNumberResourcesPerBand* indicates the maximum number of resources across all CCs within a band simultaneously;  *-* *totalNumberTxPortsPerBand* indicates the total number of Tx ports across all CCs within a band simultaneously. | Band | No | N/A | N/A |
| ***srs-combEight-r17***  Indicates whether the UE supports comb-8 for SRS other than for positioning. | Band | No | N/A | N/A |
| ***srs-combOffsetCombinedGroupSequence-r18***  Indicates whether the UE supports SRS comb offset hopping combined with group/sequence hopping.  The UE supporting this feature shall also indicate the support of *srs-combOffsetHopping-r18*. | Band | No | N/A | N/A |
| ***srs-combOffsetHopping-r18***  Indicates whether the UE supports SRS comb offset hopping.  The UE supporting this feature shall also indicate the support of *supportedSRS-Resources.* | Band | No | N/A | N/A |
| ***srs-combOffsetHoppingWithinSubset-r18***  Indicates whether the UE supports configuration of subset of comb offsets for comb offset hopping.  A UE supporting this feature shall also indicate support of *srs-combOffsetHopping-r18*. | Band | No | N/A | N/A |
| ***srs-combOffsetInTime-r18***  Indicates whether the UE supports comb offset hopping granularity in time when repetition factor R>1 is configured. Value *srs* indicates the granularity is per SRS symbol, Value *rsrs* indicates the granularity is per R SRS symbols, Value *both* indicates both of per SRS symbol and per R SRS symbols are supported.  The UE supporting this feature shall also indicate the support of *srs-combOffsetHopping-r18*. | Band | No | N/A | N/A |
| ***srs-cyclicShiftCombinedCombOffset-r18***  Indicates whether the UE supports SRS cyclic shift hopping combined SRS comb offset hopping.  The UE supporting this feature shall also indicate the support of *srs-combOffsetHopping-r18* and *srs-cyclicShiftHopping-r18*. | Band | No | N/A | N/A |
| ***srs-cyclicShiftCombinedGroupSequence-r18***  Indicates whether the UE supports SRS cyclic shift hopping combined with group/sequence hopping.  The UE supporting this feature shall also indicate the support of *srs-cyclicShiftHopping-r18*. | Band | No | N/A | N/A |
| ***srs-cyclicShiftHopping-r18***  Indicates whether the UE supports SRS cyclic shift hopping.  A UE supporting this feature shall also indicate support of *supportedSRS-Resources*. | Band | No | N/A | N/A |
| ***srs-cyclicShiftHoppingSmallGranularity-r18***  Indicates whether the UE supports configuration of cyclic shift hopping with smaller granularity (with factor K=2).  A UE supporting this feature shall also indicate the support *srs-cyclicShiftHopping-r18*. | Band | No | N/A | N/A |
| ***srs-increasedRepetition-r17***  Indicates whether the UE supports increased repetition patterns (8, 10, 12, 14 symbols) for SRS resource.  The UE supporting this feature shall also indicate the support of *srs-StartAnyOFDM-Symbol-r16*. | Band | No | N/A | N/A |
| ***srs-partialFreqSounding-r17***  Indicates the support of partial frequency sounding for SRS for non-frequency hopping case.  The UE indicating support of this feature shall also indicate the support of *srs-partialFrequencySounding-r17*. | Band | No | N/A | N/A |
| ***srs-partialFrequencySounding-r17***  Indicates whether the UE supports partial frequency sounding for SRS with frequency hopping. | Band | No | N/A | N/A |
| ***srs-PortReport-r17***  Indicates the maximum number of SRS ports for each UE reported quantity in *reportQuantity-r17*. | Band | No | N/A | N/A |
| ***srs-PortReportSP-AP-r17***  Indicates that the UE supports the maximum number of SRS ports with semi-persistent/aperiodic capability value reporting.  The UE supporting this feature shall also indicate support of *srs-PortReport-r17* and one of *aperiodicBeamReport*, *sp-BeamReportPUCCH*, *sp-BeamReportPUSCH,* *ssb-csirs-SINR-measurement-r16, semi-PersistentL1-SINR-Report-PUCCH-r16* or *semi-PersistentL1-SINR-Report-PUSCH-r16.* | Band | No | N/A | N/A |
| ***srs-PosResourcesRRC-Inactive-r17***  Indicates support of positioning SRS transmission in RRC\_INACTIVE for initial UL BWP. The capability signalling comprises the following parameters:  - *maxNumberSRS-PosResourceSetPerBWP-r17* Indicates the max number of SRS Resource Sets for positioning supported by UE*;*  - *maxNumberSRS-PosResourcesPerBWP-r17* indicates the max number of P/SP SRS Resources for positioning;  - *maxNumberSRS-ResourcesPerBWP-PerSlot-r17* indicates the max number of P/SP SRS Resources for positioning per slot;  - *maxNumberPeriodicSRS-PosResourcesPerBWP-r17* indicates the max number of periodic SRS Resources for positioning;  - *maxNumberPeriodicSRS-PosResourcesPerBWP-PerSlot-r17* indicates the max number of periodic SRS Resources for positioning per slot.  NOTE: OLPC for SRS for positioning based on SSB from the last serving cell (the cell that releases UE from connection) is part of this feature. No dedicated capability signalling is intended for this component | Band | No | N/A | N/A |
| ***srs-SemiPersistent-PosResourcesRRC-Inactive-r17***  Indicates support of positioning SRS transmission in RRC\_INACTIVE for initial UL BWP with semi-persistent SRS. UE indicating support of this feature shall indicate support of *srs-PosResourcesRRC-Inactive-r17*.  The capability signalling comprises the following parameters:  - *maxNumOfSemiPersistentSRSposResources-r17* indicates the max number of semi-persistent SRS Resources for positioning;  - *maxNumOfSemiPersistentSRSposResourcesPerSlot-r17* indicates the max number of semi-persistent SRS Resources for positioning per slot. | Band | No | N/A | N/A |
| ***srs-startRB-locationHoppingPartial-r17***  Indicates whether the UE supports start RB location hopping in partial frequency SRS transmission across different SRS frequency hopping periods for periodic/semi-persistent/aperiodic SRS.  The UE supporting this feature shall also indicate the support of *srs-partialFrequencySounding-r17.* | Band | No | N/A | N/A |
| ***srs-TriggeringDCI-r17***  Indicates whether the UE supports triggering SRS in DCI 0\_1/0\_2 without data and without CSI. | Band | No | N/A | N/A |
| ***srs-TriggeringOffset-r17***  Indicates the maximum number of configured available slots offsets for determining aperiodic SRS location based on available slot. | Band | No | N/A | N/A |
| ***ssb-csirs-SINR-measurement-r16***  Indicates the limitations of the UE support of SSB/CSI-RS for L1-SINR measurement.  This capability signalling includes list of the following parameters:  Per slot limitations:  - *maxNumberSSB-CSIRS-OneTx-CMR-r16* indicates the maximum number of SSB/CSI-RS (1TX) across all CCs within a band for Channel Measurement Report  - *maxNumberCSI-IM-NZP-IMR-res-r16* indicates the maximum number of CSI-IM/NZP-IMR resources across all CCs within a band  - maxNumberCSIRS-2Tx-res-r16 indicates the maximum number of CSI-RS (2TX) resources across all CCs within a band for Channel Measurement Report  Memory limitations:  - *maxNumberSSB-CSIRS-res-r16* indicates the max number of SSB/CSI-RS resources across all CCs within a band as Channel Measurement Report  - *maxNumberCSI-IM-NZP-IMR-res-mem-r16* indicates the maximum number of CSI-IM/NZP-IMR resources across all CCs within a band  Other limitations:  - *supportedCSI-RS-Density-CMR-r16* indicates supported density of CSI-RS for Channel Measurement Report.  - *maxNumberAperiodicCSI-RS-Res-r16* indicates the maximum number of aperiodic CSI-RS resources across all CCs within a band configured to measure L1-SINR (including CMR and IMR)  - *supportedSINR-meas* indicates the supported SINR measurements.  - *supportedSINR-meas-r16* contains values {*ssbWithCSI-IM*, *ssbWithNZP-IMR*, *csirsWithNZP-IMR*, *csi-RSWithoutIMR*} representing {SSB as CMR with dedicated CSI-IM, SSB as CMR with dedicated NZP IMR, CSI-RS as CMR with dedicated NZP IMR configured, CSI-RS as CMR without dedicated IMR configured}.  - *supportedSINR-meas-v1670* indicates a 4-bit bitmap {ssbWithCSI-IM, ssbWithNZP-IMR, csirsWithNZP-IMR, csi-RSWithoutIMR}, where the leftmost bit corresponds to ssbWithCSI-IM, the next bit corresponds to ssbWithNZP-IMR and so on. UE indicating *supportedSINR-meas-v1670* shall always indicate *supportedSINR-meas-r16.*  UE supporting this feature shall also indicate support of CSI-RS as CMR with dedicated CSI-IM. UE indicating support of this feature shall also indicate support of *periodicBeamReport* and *aperiodicBeamReport* or *sp-BeamReportPUCCH* and *sp-BeamReportPUSCH.* UE indicating support of *ssb-csirs-SINR-measurement-r16* shall support periodic and aperiodic L1-SINR report.  NOTE 1: The reference slot duration is the shortest slot duration defined for the frequency range where the reported band belongs.  NOTE 2: For *maxNumberSSB-CSIRS-res-r16* and *maxNumberCSI-IM-NZP-IMR-res-mem-r16* the configured CSI-RS resources for both active and inactive BWPs are counted.  NOTE 3: For *maxNumberSSB-CSIRS-OneTx-CMR-r16, maxNumberCSI-IM-NZP-IMR-res-r16* and *maxNumberCSIRS-2Tx-res-r16*, CSI-RS resources configured as CMR without dedicated IMR are counted both as CMR and IMR.  NOTE 4: For *maxNumberSSB-CSIRS-OneTx-CMR-r16*, *maxNumberCSI-IM-NZP-IMR-res-r16*, *maxNumberCSIRS-2Tx-res-r16*, *maxNumberAperiodicCSI-RS-Res-r16*, a SSB/CSI-RS resource is counted within the duration of a reference slot in which the corresponding reference signals are transmitted.  NOTE 5: For *maxNumberSSB-CSIRS-OneTx-CMR-r16*, *maxNumberCSI-IM-NZP-IMR-res-r16*, *maxNumberCSIRS-2Tx-res-r16*, *maxNumberAperiodicCSI-RS-Res-r16*, if one resource used for L1-SINR measurement is referred N times by one or more CSI reporting settings with *reportQuantity-r16* = *ssb-Index-SINR-r16* or *cri-SINR-r16*, it is counted N times.  NOTE 6: If more than one type of SINR measurement is indicated in *supportedSINR-meas-v1670*, it is left to UE implementation which SINR measurement to indicate in *supportedSINR-meas-r16*. | Band | No | N/A | N/A |
| ***sssg-Switching-1BitInd-r17***  Indicates whether the UE supports 1-bit indication of SSSG switching between 2 SSSGs by scheduling DCI, and timer based SSSG switching, if *pdcch-SkippingDurationList* is not configured as specified in TS 38.213 [11], clause 10.4. UE supports search space set group switching capability-1 according to Table 10.4-1 of TS 38.213 [11]. | Band | No | N/A | N/A |
| ***sssg-Switching-2BitInd-r17***  Indicates whether the UE supports 2-bit indication of SSSG switching among 3 SSSGs by scheduling DCI and timer based SSSG switching, if *pdcch-SkippingDurationList* is not configured as specified in TS 38.213 [11], clause 10.4. UE supports search space set group switching capability-1 according to Table 10.4-1 of TS 38.213 [11].  UE indicating support of this feature shall also indicate support of *sssg-Switching-1bitInd-r17*. | Band | No | N/A | N/A |
| ***support12PRB-CORESET0-r18***  Indicates whether the UE supports reception of 12 PRB CORESET0 with an associated SS/PBCH block that is located according to Table 5.4.3.1-2 in TS 38.101-1 [2].  A UE supporting this feature shall also indicate support of *support3MHz-ChannelBW-Symmetric-r18*.  This feature is supported for 15kHz SCS only.  This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*.  NOTE: The UE supporting this capability supports configuration of 12 PRB BWP operation. | Band | No | FDD only | FR1 only |
| ***support3MHz-ChannelBW-Asymmetric-r18***  Indicates whether the UE supports 3 MHz channel bandwidth in uplink with larger than 3 MHz channel BW in DL, including short RACH preamble formats with 15kHz SCS, and long PRACH formats with 1.25kHz SCS.  This feature is supported for 15kHz SCS only. It applies to bands where the UE indicates support for *asymmetricBandwidthCombinationSet* with 3 MHz UL according to clause 5.3.6 of TS 38.101-1 [2].  This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*.  NOTE 1: The UE supporting this feature supports configuration of 15 PRB UL BWP operation.  NOTE 2: If the UE indicates support in *asymmetricBandwidthCombinationSet* for a 3MHz UL in a band according to clause 5.3.6 of 38.101-1 [2], this feature shall be indicated for the band. | Band | No | FDD only | FR1 only |
| ***support3MHz-ChannelBW-Symmetric-r18***  Indicates whether the UE supports 3 MHz symmetric channel bandwidth in DL and UL, including the following functional components:  *-* Reception of 12 PRB PBCH based on RB-level puncturing;  *-* Short RACH preamble formats with 15kHz SCS, and long PRACH formats with 1.25kHz SCS;  *-* Reception of 15 PRB CORESET0.  This feature is supported for 15kHz SCS only. It is applicable when an associated SS/PBCH block is located according to Table 5.4.3.3-2 in TS 38.101-1 [2].  This feature is not applicable to UEs indicating *supportOfRedCap-r17* or *supportOfERedCap-r18*.  NOTE: The UE supporting this capability supports configuration of 15 PRB BWP operation in DL and UL. | Band | No | FDD only | FR1 only |
| ***support64CandidateBeamRS-BFR-r16***  Indicates UE support of configuring maximum 64 candidate beam RSs per BWP per CC. UE indicating support of this feature shall also indicate support of *maxNumberCSI-RS-BFD, maxNumberSSB-BFD* and *maxNumberCSI-RS-SSB-CBD.* | Band | No | N/A | N/A |
| ***supportCodeWordSoftCombining-r16***  Indicates whether UE supports codeword soft combining for FDMSchemeB. UE indicates support of this feature depends on whether the *supportFDM-SchemeB-r16* is also supported. | Band | No | N/A | N/A |
| ***supportFDM-SchemeA-r16***  Indicates whether UE supports single DCI based FDMSchemeA. | Band | No | N/A | N/A |
| ***supportInter-slotTDM-r16***  Indicates whether UE supports single-DCI based inter-slot TDM. This capability signalling includes the following:  - *supportRepNumPDSCH-TDRA-r16* indicates support of *repetitionNumber-r16* in *PDSCH-TimeDomainResourceAllocation-r16* and the maximum value of *repetitionNumber-r16*  - *maxTBS-Size-r16* indicates maximum TBS size.  - *maxNumberTCI-states-r16* indicates the maximum number of TCI states. | Band | No | N/A | N/A |
| ***supportNewDMRS-Port-r16***  Indicates whether UE supports new DMRS port entry {0,2,3}. UE supports this feature should indicate support *singleDCI-SDM-scheme-r16* for the band. | Band | No | N/A | N/A |
| ***supportOf2RxXR-r18***  Indicates that the UE is 2Rx XR UE as specified in TS 38.101-1 [2] (see "two antenna port XR UE"). A UE reporting this parameter shall not indicate support of *supportOfRedCap-r17* or *supportOfERedCap-r18*. | Band | No | N/A | N/A |
| ***supportRepNumPDSCH-TDRA-DCI-1-2-r17***  Indicates support of *repetitionNumber-v1730* in *PDSCH-TimeDomainResourceAllocation* for DCI format 1\_2 and the maximum value of *repetitionNumber-v1730*. The UE indicating support of this field shall also indicate support of *dci-Format1-2And0-2-r16*. | Band | No | N/A | N/A |
| ***supportTDM-SchemeA-r16***  Indicates whether UE supports single DCI based TDMSchemeA. The capability signalling includes the maximum TBS size. | Band | No | N/A | N/A |
| ***supportTwoPortDL-PTRS-r16***  Indicates whether UE supports 2-port DL PT-RS. UE supports this feature should indicate support *singleDCI-SDM-scheme-r16* for the band. | Band | No | N/A | N/A |
| ***ta-BasedPDC-NTN-SharedSpectrumChAccess-r17***  Indicates whether the UE supports propagation delay compensation based on Rel-15 TA procedure for NTN and shared spectrum channel access. | Band | No | N/A | N/A |
| ***ta-IndicationCellSwitch-r18***  Indicates whether the UE supports TA indication in cell switch command.  A UE supporting this feature shall also indicate support of at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*.  For cross-band operation, this capability refers to the source band. | Band | No | N/A | N/A |
| ***tb-ProcessingMultiSlotPUSCH-r17***  Indicates whether UE supports TB processing over multi-slot PUSCH for DG and Type 2 CG without repetition in RRC connected mode. | Band | No | N/A | N/A |
| ***tb-ProcessingRepMultiSlotPUSCH-r17***  Indicates whether UE supports repetition of TB processing over multi-slot PUSCH in RRC connected mode.  UE supporting this feature shall also indicate support of *tb-ProcessingMultiSlotPUSCH-r17*. | Band | No | N/A | N/A |
| ***tci-StatePDSCH***  Defines support of TCI-States for PDSCH. The capability signalling comprises the following parameters:  - *maxNumberConfiguredTCI-StatesPerCC* indicates the maximum number of configured TCI-states per CC for PDSCH. For FR2, the UE is mandated to set the value at least to 64 (i.e. value 128 is an optional value). For FR1, the UE is mandated to set these values at least to the maximum number of allowed SSBs in the supported band;  - *maxNumberActiveTCI-PerBWP* indicates the maximum number of activated TCI-states per BWP per CC, including control and data. If a UE reports X active TCI state(s), it is not expected that more than X active QCL type D assumption(s) for any PDSCH and any CORESETs for a given BWP of a serving cell become active for the UE. The UE shall include this field.  NOTE: the UE is required to track only the active TCI states.  The UE is mandated to report *tci-StatePDSCH*. | Band | Yes | N/A | N/A |
| ***tci-StateSwitchInd-r18***  Indicates whether the UE supports enhanced one-shot large UL transmit timing adjustment requirement to support FR2-1 PC6 Ues and enhanced TCI state switching delay requirements based on [the cross-RRH TCI state indication for UE-specific PDCCH MAC CE] in HST FR2 scenario, as specified in TS 38.133 [5].  A UE supporting this feature shall also indicate support of PC6 in *ue-PowerClass-v1700*. | Band | No | N/A | FR2 only |
| ***tci-JointTCI-UpdateMultiActiveTCI-PerCC-r18***  Indicates whether the UE supports unified TCI with joint DL/UL TCI update for single-DCI based intra-cell multi-TRP with multiple activated TCI codepoints per CC. The capability signalling comprises the following parameters:  - *tci-StateInd-r18* indicates TCI state indication for update and activation. Value *withAssignment* corresponds to MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) with DL assignment, value *withoutAssignment* corresponds to MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) without DL assignment;  - *maxNumberActiveJointTCI-PerCC-r18* indicates the maximum number of activated joint TCI states per CC.  A UE supporting this feature shall also indicate support *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18* and *unifiedJointTCI-multiMAC-CE-r17*.  NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams | Band | No | N/A | N/A |
| ***tci-JointTCI-UpdateMultiActiveTCI-PerCC-PerCORESET-r18***  Indicates whether the UE supports unified TCI with joint DL/UL TCI update for multi-DCI based multi-TRP with multiple activated TCI codepoints per *CORESETPoolIndex* per CC. The capability indicates the maximum number of MAC-CE activated joint TCI states per *CORESETPoolIndex* per CC.  The TCI state indication for update and activation includes:  - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) with DL assignment;  - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) without DL assignment.  A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18* and *unifiedJointTCI-multiMAC-CE-r17*. | Band | No | N/A | N/A |
| ***tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18***  Indicates whether the UE supports Unified TCI with joint DL/UL TCI update for single-DCI based intra-cell multi-TRP with single activated TCI codepoint per CC.  The capability signalling comprises the following parameters:  - *maxNumberConfigJointTCIPerCC-PerBWP-r18* indicates the maximum number of configured joint TCI states per CC per BWP;  - *maxNumberActiveJointTCI-AcrossCC-r18* indicates the maximum number of activated joint TCI states across all CCs in a band.  A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*.  NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams. | Band | No | N/A | N/A |
| ***tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18***  Indicates whether the UE supports unified TCI with joint DL/UL TCI update for multi-DCI based multi-TRP with single activated TCI codepoint per *CORESETPoolIndex* per CC. UE supporting this feature supports one MAC-CE activated joint TCI-states per CC in a band for a TRP associated with a '*coresetPoolIndex*' value.  The capability signalling comprises the following parameters:  - *mTRP-Operation-r18* indicates mTRP operation for M-DCI with joint TCI state.  - *maxNumberConfigJointTCIPerCC-PerBWP-r18* indicates the maximum number of configured joint TCI states per BWP per CC.  - *maxNumberActiveJointTCIAcrossCC-PerCORESET-r18* indicates the maximum number of activated joint TCI states across all CCs in a band per '*coresetPoolIndex*' value.  A UE supporting this feature shall also indicate support of *unifiedJointTCI-r17*.  NOTE 1: Activated joint TCI state(s) include all PDCCH/PDSCH receptions and PUSCH/PUCCH transmissions.  NOTE 2: defaultQCL-PerCORESETPoolIndex-r16 can be used to indicate support of two default beams. | Band | No | N/A | N/A |
| ***tci-SelectionAperiodicCSI-RS-r18***  Indicates whether the UE supports per aperiodic CSI-RS resource/resource set configuration for TCI selection in S-DCI based MTRP.  The UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18.*  NOTE: When the UE supports NCJT CSI under *mTRP-CSI-EnhancementPerBand-r17* or CJT CSI under *twoTCI-StatePDSCH-CJT-TxScheme-r18*, UE is expected to support "*per resource*" when the corresponding NCJT CSI or CJT CSI is configured. | Band | No | N/A | N/A |
| ***tci-SelectionAperiodicCSI-RS-M-DCI-r18***  Indicates whether the UE supports per aperiodic CSI-RS resource/resource set configuration for TCI selection in M-DCI based MTRP.  The UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18*. | Band | No | N/A | N/A |
| ***tci-SelectionDCI-r18***  Indicates whether the UE supports DCI format 1\_1 and if supported 1\_2 configured with TCI selection field.  The UE supporting this feature shall also indicate support of at least one of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18, tci-JointTCI-UpdateMultiActiveTCI-PerCC-r18*, *tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-r18,* and *tci-SeparateTCI-UpdateMultiActiveTCI-PerCC-r18*. | Band | No | N/A | N/A |
| ***tci-SeparateTCI-UpdateMultiActiveTCI-PerCC-r18***  Indicates whether the UE supports unified TCI with separate DL/UL TCI update for single-DCI based intra-cell multi-TRP with multiple activated TCI codepoints per CC.  TCI state indication for update and activation includes:  - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) with DL assignment;  - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) without DL assignment.  The capability signalling comprises the following parameters:  - *maxNumActiveDL-TCI-AcrossCC-r18* indicates the maximum number of activated DL TCI states across all CCs in a band,  - *maxNumActiveUL-TCI-AcrossCC-r18* indicates the maximum number of activated UL TCI states across all CCs in a band.  The UE supporting this feature shall also indicate support of *tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-r18.*  NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams. | Band | No | N/A | N/A |
| ***tci-SeparateTCI-UpdateMultiActiveTCI-PerCC-PerCORESET-r18***  Indicates whether the UE supports unified TCI with separate DL/UL TCI update for multi-DCI based multi-TRP with multiple activated TCI codepoints per CORESETPoolIndex per CC. TCI state indication for update and activation includes:  - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) with DL assignment;  - MAC-CE+DCI-based TCI state indication (use of monitored DCI formats 1\_1 and if supported 1\_2) without DL assignment.  The capability signalling comprises the following parameters:  - *maxNumConfigDL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured DL TCI states per CC per BWP ,  - *maxNumConfigUL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured UL TCI states per CC per BWP.  A UE supporting this feature shall also indicate support of *tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18* and *unifiedSeparateTCI-multiMAC-CE-r17*. | Band | No | N/A | N/A |
| ***tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-r18***  Indicates whether the UE supports unified TCI with separate DL/UL TCI update for single-DCI based intra-cell multi-TRP with single activated TCI codepoint per CC. The capability signalling comprises the following parameters:  - *maxNumConfigDL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured DL TCI states per CC per BWP ,  - *maxNumConfigUL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured UL TCI states per CC per BWP.  - *maxNumActiveDL-TCI-AcrossCC-r18* indicates the maximum number of activated DL TCI states across all CCs in a band,  - *maxNumActiveUL-TCI-AcrossCC-r18* indicates the maximum number of activated UL TCI states across all CCs in a band.  A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18* and *unifiedJointTCI-commonUpdate-r17*.  NOTE: *defaultQCL-TwoTCI-r16* can be used to indicate support of two default beams | Band | No | N/A | N/A |
| ***tci-SeparateTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18***  Indicates whether the UE supports unified TCI with separate DL/UL TCI update for multi-DCI based multi-TRP with single activated TCI codepoint per *CORESETPoolIndex* per CC.  UE supporting this feature supports one MAC-CE activated DL TCI-state per CC in a band for a TRP associated with a 'coresetPoolIndex' value and one MAC-CE activated UL TCI-state per CC in a band for a TRP associated with a 'coresetPoolIndex' value.  The capability signalling comprises the following parameters:  - *mTRP-Operation-r18* indicates the mTRP operation for M-DCI with separate DL/UL TCI state.  - *maxNumConfigDL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured DL TCI states per CC per BWP,  - *maxNumConfigUL-TCI-PerCC-PerBWP-r18* indicates the maximum number of configured UL TCI states per CC per BWP.  - *maxNumActiveDL-TCI-AcrossCC-r18* indicates the maximum number of activated DL TCI states across all CCs in a band,  - *maxNumActiveUL-TCI-AcrossCC-r18* indicates the maximum number of activated UL TCI states across all CCs in a band.  A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-PerCORESET-r18* and *unifiedSeparateTCI-r17.* | Band | No | N/A | N/A |
| ***tci-TRP-BFR-r18***  Indicates whether the UE supports TRP-specific BFR with unified TCI framework with Unified TCI.  A UE supporting this feature shall also indicate support of *mTRP-BFR-twoBFD-RS-Set-r17*. | Band | No | N/A | N/A |
| ***tdcp-Report-r18***  Indicates whether the UE supports Y=1 delay value for TDCP report and amplitude report. The UE also supports to configure KTRS = 1 TRS resource set.  This capability signalling comprises the following parameters:  - *valueX-r18* indicates CPU occupation (OCPU=(Y+1)\*X).  - *maxNumberActiveResource-r18* indicates the index *N* of the maximum number of simultaneously active CSI-RS resources for TDCP across all CCs within a band. The maximum number of simultaneously active CSI-RS resources for TDCP across all CCs within a band is *N*\*2, where *N* = {2..32}.  A UE supporting this feature shall also indicate support of *csi-ReportFramework* and *simultaneousCSI-ReportsAllCC.*  NOTE: Counting of simultaneously active CSI-RS resources follows existing specification TS 38.214 [12]. | Band | No | N/A | N/A |
| ***tdcp-Resource-r18***  Indicates the number of CSI-RS resources for TDCP that the UE supports.  This capability signalling comprises the following parameters:  - *maxNumberConfigPerCC-r18* indicates the maximum number of configured CSI-RS resources for TDCP per CC.  - *maxNumberConfigAcrossCC-r18* indicates the index *N* the maximum number of configured CSI-RS resources for TDCP across all CCs within a band. The maximum number of configured CSI-RS resources for TDCP across all CCs within a band is *N*\*2, where *N* = {1..32}.  - *maxNumberSimultaneousPerCC-r18* indicates the maximum number of simultaneously active CSI-RS resources for TDCP per CC.  A UE supporting this feature shall indicate support of *tdcp-Report-r18*.  NOTE: Counting of simultaneously active CSI-RS resources follows existing specification TS 38.214 [12]. | Band | No | N/A | N/A |
| ***thresholdBasedMulticastResume-r18***  Indicates whether the UE supports *thresholdMBS-List-r18* as specified in TS 38.331 [9].  A UE supporting this feature shall also indicate support of *multicastInactive-r18*. | Band | No | N/A | N/A |
| ***timeBasedCondHandover-r17***  Indicates whether the UE supports time based conditional handover, i.e., *CondEvent T1* as specified in TS 38.331 [9]. A UE supporting this feature shall also indicate the support of *condHandover-r16* for NTN bands and the support of *nonTerrestrialNetwork-r17*. UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively. The inter-band time based conditional handover is supported only if the UE sets the capability value for the source PCell and the target PCell bands. | Band | No | N/A | N/A |
| ***timelineRelax-CJT-CSI-r18***  Indicates whether the UE supports timeline relaxation parameter for regular eType-II-CJT CSI, or for port selection FeType-II-CJT CSI. Value *n0* indicates 0, value *n2* indicates Z2.  A UE supporting this feature shall also indicate support of *eType2CJT-r18* or *feType2CJT-r18*.  NOTE: A UE that supports *eType2CJT-r18* or *feType2CJT-r18* must signal this feature. | Band | CY | N/A | N/A |
| ***triggeredHARQ-CodebookRetx-r17***  Indicates whether the UE supports triggered HARQ-ACK codebook re-transmission from an earlier PUCCH slot based on the triggering information in DCI format 1\_1 and DCI format 1\_2 (for a UE supporting DCI format 1\_2 as indicated in dci-Format1-2And0-2-r16) and support the related PHY priority handling in terms of HARQ-ACK codebook selection and the applicable PUCCH configuration (for a UE supporting two HARQ-ACK codebooks / PUCCH config as indicated in twoHARQ-ACK-Codebook-type1-r16). The capability signalling comprises the following parameters:  - *minHARQ-Retx-Offset-r17* indicates minimum value for the HARQ re-tx offset. Value *n-7* corresponds to -7, value *n-5* corresponds to -5, and so on.  - *maxHARQ-Retx-Offset-r17* indicates maximum value for the HARQ re-tx offset.  NOTE: The minimum requirement for *minHARQ-Retx-Offset-r17* and *maxHARQ-Retx-Offset-r17* is valid for HARQ CBs consisted of HARQ Processes with a single HARQ bit per HARQ Process ID. | Band | No | N/A | N/A |
| ***triggeredHARQ-CodebookRetxDCI-1-3-r18***  Indicates whether the UE supports triggered HARQ-ACK codebook re-transmission from an earlier PUCCH slot based on the triggering information in DCI format 1\_3 and supports the related PHY priority handling in terms of HARQ-ACK codebook selection and the applicable PUCCH configuration (for a UE supporting two HARQ-ACK codebooks / PUCCH config in *simultaneous-2-1-HARQ-ACK-CB-r18*). The capability signalling comprises the following parameters:  - *minHARQ-Retx-Offset-r18* indicates minimum value for the HARQ re-tx offset. Value *n-7* corresponds to -7, value *n-5* corresponds to -5, and so on. If the UE also supports *triggeredHARQ-CodebookRetx-r17*, the same values as *minHARQ-Retx-Offset-r17* is reported.  - *maxHARQ-Retx-Offset-r18* indicates maximum value for the HARQ re-tx offset. If the UE also supports *triggeredHARQ-CodebookRetx-r17*, the same values as *maxHARQ-Retx-Offset-r17* is reported.  A UE supporting this feature shall also indicate support of at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*.  NOTE: The minimum requirement for *minHARQ-Retx-Offset-r18* and *maxHARQ-Retx-Offset-r18* is valid for HARQ CBs consisting of HARQ Processes with a single HARQ bit per HARQ Process ID. | Band | No | N/A | N/A |
| ***trs-AdditionalBandwidth-r16***  Indicates the UE supported TRS bandwidths, in addition to 52 RBs, for a 10MHz UE channel bandwidth. This field only applies for the BWPs configured with 52 RBs size and 15kHz SCS, in FDD bands.  Value *trs-AddBW-Set1* indicates 28, 32, 36, 40, 44, 48 RBs.  Value *trs-AddBW-Set2* indicates 32, 36, 40, 44, 48 RBs. | Band | No | FDD only | FR1 only |
| ***twoHARQ-ACK-CodebookForUnicastAndMulticast-r17***  Indicates whether the UE supports two HARQ-ACK codebooks simultaneously constructed for supporting HARQ-ACK codebooks with different priorities for unicast and multicast at a UE.  For TN, the UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands and all TDD-FR2 bands, associated with supported shared and non-shared spectrum respectively. For NTN, UE shall set the capability value consistently for all FDD-FR1 NTN bands and all FDD-FR2 NTN bands respectively.  A UE supporting this feature shall also indicate support of *priorityIndicatorInDCI-Multicast-r17*. | Band | No | N/A | N/A |
| ***twoPHR-Reporting-r18***  Indicates whether the UE supports two PHR reporting related to STx2P.  A UE supporting this feature shall also indicate support of at least one of *pusch-CB-SingleDCI-STx2P-SDM-r18, pusch-NonCB-SingleDCI-STx2P-SDM-r18, pusch-CB-SingleDCI-STx2P-SFN-r18, pusch-NonCB-SingleDCI-STx2P-SFN-r18, twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18,* and *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.  NOTE: If gNB does not configure corresponding RRC parameter for this feature, UE will report a PHR for an actual PUSCH transmission and PHR for the first indicated TCI state or PHR associated with *coresetPoolIndex0* is reported if actual PUSCH transmission is based on STx2P schemes. | Band | No | N/A | FR2 only |
| ***twoPortsPTRS-UL***  Defines whether UE supports PT-RS with 2 antenna ports for UL transmission. | Band | No | N/A | N/A |
| ***twoPUSCH-CB-MultiDCI-STx2P-CG-CG-r18***  Indicates whether the UE supports multi-DCI based STx2P CG-PUSCH+CG-PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-CG-DG-r18***  Indicates whether the UE supports multi-DCI based STx2P DG-PUSCH+CG-PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-FullTimeFullFreqOverlap-r18***  Indicates whether the UE supports fully overlapping PUSCHs in time and fully overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-FullTimePartialFreqOverlap-r18***  Indicates whether the UE supports fully overlapping PUSCHs in time and partially overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* | Band | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-PartialTimeFullFreqOverlap-r18***  Indicates whether the UE supports partially overlapping PUSCHs in time and fully overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* | Band | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-PartialTimeNonFreqOverlap-r18***  Indicates whether the UE supports the partially overlapping PUSCHs in time, non-overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* | Band | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-PartialTimePartialFreqOverlap-r18***  Indicates whether the UE supports the partially overlapping PUSCHs in time, partially overlapping in frequency for codebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-CG-CG-r18***  Indicates whether the UE supports multi-DCI based STx2P CG-PUSCH+CG-PUSCH for noncodebook.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-CG-DG-r18***  Indicates whether the UE supports multi-DCI based STx2P DG-PUSCH+CG-PUSCH for noncodebook.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-Multi-DCI-STx2P-CSI-RS-Resource-r18***  Indicates whether the UE supports up to two NZP CSI-RS resources associated with the two SRS resource sets for multi-DCI non-codebook based STx2P scheme for PUSCH. The capability signalling comprises the following parameters:  - *maxNumberPeriodicSRS-r18* indicates the maximum number of periodic SRS resources associated with first and second CSI-RS per BWP.  - *maxNumberAperiodicSRS-r18* indicates the maximum number of aperiodic SRS resources associated with first and second CSI-RS per BWP.  - *maxNumberSemiPersistentSRS-r18* indicates the maximum number of semi-persistent SRS resources associated with first and second CSI-RS per BWP.  - *simultaneousSRS-PerCC-r18* indicates the number of SRS resources associated with first and second CSI-RS resources simultaneously in a CC that the UE can process. The number of SRS resources includes P/SP/A SRS.  - *simultaneousCSI-RS-NonCB-r18* indicates the maximum number of CSI-RS resources associated with SRS for non-codebook-based transmission simultaneously that the UE can process.  A UE supporting this feature shall also indicate support of *srs-AssocCSI-RS*, *csi-RS-IM-ReceptionForFeedbackPerBandComb* and *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-FullTimeFullFreqOverlap-r18***  Indicates whether the UE supports fully overlapping PUSCHs in time and fully overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-FullTimePartialFreqOverlap-r18***  Indicates whether the UE supports fully overlapping PUSCHs in time and partially overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH. A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-PartialTimeFullFreqOverlap-r18***  Indicates whether the UE supports partially overlapping PUSCHs in time and fully overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-PartialTimeNonFreqOverlap-r18***  Indicates whether the UE supports partially overlapping PUSCHs in time, non-overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-PartialTimePartialFreqOverlap-r18***  Indicates whether the UE supports partially overlapping PUSCHs in time, partially overlapping in frequency for noncodebook multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*. | Band | No | N/A | FR2 only |
| ***twoRateMatchingEUTRA-CRS-patterns-3-4-r18***  Indicates whether the UE supports two LTE-CRS overlapping rate matching patterns configured by *lte-CRS-PatternList3-r18* and *lte-CRS-PatternList4-r18* within a part of NR carrier using 15 kHz overlapping with a LTE carrier (regardless of support or configuration of multi-TRP) for the case when *crs-RateMatchPerCoresetPoolIndex* is not configured. The capability signalling comprises the following parameters:  - *maxNumberPatterns-r18* indicates the maximum number of LTE-CRS rate matching patterns in total within a NR carrier using 15 kHz SCS.  - *maxNumberNon-OverlapPatterns-r18* indicates the maximum number of LTE-CRS non-overlapping rate matching patterns within a NR carrier using 15 kHz SCS.  UE supporting this feature shall support *rateMatchingLTE-CRS*.  NOTE: If a UE supports this feature and *multipleRateMatchingEUTRA-CRS-r16*, *multipleRateMatchingEUTRA-CRS-r16* is reported for *lte-CRS-PatternList1-r16* and *lte-CRS-PatterList2-r16* and *twoRateMatchingEUTRA-CRS-patterns-3-4-r18* is reported for *lte-CRS-PatternList3-r16* and *lte-CRS-PatternList4-r16*. | Band | No | N/A | FR1 only |
| ***twoTCI-StatePDSCH-CJT-TxScheme-r18***  Indicates whether the UE supports two TCI states for CJT Tx scheme for PDSCH.  Value *cjtSchemeA* corresponds to PDSCH DMRS port(s) is QCLed with the DL RSs of both indicated joint/DL TCI states with respect to QCL-TypeA, value *cjtSchemeB* corresponds to PDSCH DMRS port(s) is QCLed with the DL RSs of both indicated joint/DL TCI states with respect to QCL-TypeA except for QCL parameters {Doppler shift, Doppler spread} of the second indicated joint/DL TCI state. Value *both* corresponds to the supporting of both *cjtSchemeA* and *cjtSchemeB*.  A UE supporting this feature shall also indicate support of *tci-JointTCI-UpdateSingleActiveTCI-PerCC-r18*. | Band | No | N/A | N/A |
| ***txDiversity-r16***  Indicates whether the UE supports transparent Tx diversity requirements for 2Tx as specified in the suffix G clauses of TS 38.101-1 [2] (see also clauses 4.2 and 4.3 of TS 38.101-1 [2]).  This field is only applicable for single CC case (i.e. non-CA). | Band | No | N/A | FR1 only |
| ***type1-HARQ-Codebook-r17***  Indicates whether the UE supports Type-1 HARQ codebook enhancements when there are feedback-disabled HARQ processes*.* UE indicating support of this feature shall also indicate support of *harq-FeedbackDisabled-r17.* This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35]. | Band | No | N/A | N/A |
| ***type1-PUSCH-RepetitionMultiSlots-v1650***  Indicates whether the UE supports Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 1 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *type1-PUSCH-RepetitionMultiSlots-r16* applies. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  The UE only includes *type1-PUSCH-RepetitionMultiSlots-v1650* if *type1-PUSCH-RepetitionMultiSlots* is absent | Band | No | N/A | N/A |
| ***type2-HARQ-Codebook-r17***  Indicates whether the UE supports Type-2 HARQ codebook enhancements when there are feedback-disabled HARQ processes*.* UE indicating support of this feature shall also indicate support of *harq-FeedbackDisabled-r17.* This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35]. | Band | No | N/A | N/A |
| ***type2-PUSCH-RepetitionMultiSlots-v1650***  Indicates whether the UE supports Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value equal to 2, 4, or 8 with a single repetition of the transport block within each slot, and redundancy version pattern as indicated by UL-TWG-RV-rep. A UE supporting this feature shall also support Type 2 PUSCH transmissions with configured grant as specified in TS 38.214 [12] with UL-TWG-repK value of one. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *type2-PUSCH-RepetitionMultiSlots-r16* applies. UE shall set the capability value consistently for all FDD-FR1 bands, all TDD-FR1 bands, all TDD-FR2-1 bands and all TDD-FR2-2 bands respectively.  The UE only includes *type2-PUSCH-RepetitionMultiSlots-v1650* if *type2-PUSCH-RepetitionMultiSlots* is absent | Band | No | N/A | N/A |
| ***type3-HARQ-Codebook-r17***  Indicates whether the UE supports Type-3 HARQ codebook enhancements when there are feedback-disabled HARQ processes*.* UE indicating support of this feature shall also indicate support of *harq-FeedbackDisabled-r17.* This field is only applicable for bands in Table 5.2.2-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35]. | Band | No | N/A | N/A |
| ***ue-OneShotUL-TimingAdj-r17***  Indicates whether the UE supports one shot large UL timing adjustment.  UE indicating support of this feature shall indicate support of *ue-PowerClass-v1700* set to *'pc6'.* | Band | No | N/A | FR2 only |
| ***ue-PowerClass, ue-PowerClass-v1610, ue-PowerClass-v1700***  For FR1, if the UE supports the different UE power class than the default UE power class as defined in clause 6.2 of TS 38.101-1 [2], or in clause 6.2 of TS 38.101-5 [34], the UE shall report the supported UE power class in this field. For FR2, UE shall report the supported UE power class as defined in clause 6 and 7 of TS 38.101-2 [3] in this field. UE indicating support for *pc6* supports the enhanced intra-NR RRM and demodulation processing requirements for FR2 to support high speed up to 350 km/h as specified in TS 38.133 [5]. This capability is not applicable to IAB-MT or NCR-MT. The power class pc7 is only applicable for RedCap UEs operation in FR2. This capability is not applicable for UEs indicating support of *maxOutputPowerATG-r18*. | Band | Yes | N/A | N/A |
| ***ue-specific-K-Offset-r17***  Indicates whether the UE supports the reception of UE-specific K-offset comprised of the following functional components:  - Support of reception of Differential K-offset via MAC-CE  - Support of determining the timing of PUSCH, PUCCH, CSI reference resource, transmission of aperiodic SRS, activation of TA command, first PUSCH transmission in CG Type 2 with Differential K-offset  UE indicating support of this feature shall also indicate support of *uplinkPreCompensation-r17* and *uplink-TA-Reporting-r17* for this band*.* This field is only applicable for bands in Table 5.2.2-1 and Table 5.2.3-1 in TS 38.101-5 [34] and HAPS operation bands in clause 5.2 of TS 38.104 [35]. | Band | No | N/A | N/A |
| ***ue-TA-Measurement-r18***  Indicates whether the UE supports UE-based TA measurement by indicating the maximum number of candidate cells that the UE maintains the TA for.  A UE supporting this feature shall also indicate the support of at least one of *ltm-MCG-IntraFreq-r18* or *ltm-SCG-IntraFreq-r18*.  For cross-band operation, this capability refers to the source band. | Band | No | N/A | N/A |
| ***ul-GapFR2-r17***  Indicates whether the UE supports FR2 UL gap to perform BPS sensing for Tx power management by the use of uplink gap patterns as specified in TS 38.133 [5] if UE supports a band in FR2. | Band | No | No | FR2 only |

1. ***Modified section***

#### 4.2.7.4 *CA-ParametersNR*

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***multiCell-PDSCH-DCI-1-3-SameSCS-r18***  Indicates whether the UE supports monitoring DCI format 1\_3 for DL scheduling with same SCS between scheduling cell and cells in the set and supports Type-2 for 'Antenna port(s)' field.  The number of unicast DL DCIs to process per slot of scheduling cell for a set of cells configured for multi-cell PDSCH scheduling by DCI format 1\_3:  - One DCI format 1\_3 for the set of cells and,  - One unicast DL DCI formats 1\_0/1\_1/1\_2 (if supported) for each of the cells that are not scheduled by DCI 1\_3.  Scheduling cell is PCell if set of cells includes PCell, and scheduling cell is PCell or an SCell if set of cells includes only SCells.  The UE monitors SS set(s) for DCI format 1\_3 for a set of cells for the following cases:  - Search space set configuration for DCI format 1\_3 for the set of cells is provided only on the scheduling cell, or;  - Search space set configurations for DCI format 1\_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being not in the set of cells.  - A UE supporting this capability can additionally report *supportOfSearchSpace-r18* to indicate whether the UE support search space set configurations for DCI format 1\_3 for the set of cells with the same searchSpaceId are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being in the set of cells.  The capability signalling comprises of the following parameters:  *-* *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have same SCS and carrier type.  *-* *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE.  *-* *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups.  *-* *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell.  *-* *harqFeedbackType-r18* indicates the supported HARQ feedback types. The UE shall report the same value for all BC supporting *multiCell-PDSCH-DCI-1-3-SameSCS-r18,* i.e. The UE shall report the same value for all supported BCs with *multiCell-PDSCH-DCI-1-3-SameSCS-r18* reported.  *-* *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes.  When multiple values are reported in *coScheduledCellSCS-r18* and if scheduling cell is not included in the set of cells, the UE supports multi-cell PDSCH scheduling by DCI format 1\_3 from one carrier type, indicated in *coScheduledCellSCS-r18*, to another carrier type, indicated in *coScheduledCellSCS-r18*, for the following scheduling cases:  - FR1 licensed TDD to FR1 unlicensed TDD  - FR2-1 to FR2-2  - UE can additionally report *licensed-fdd-tdd-fr1* indicating the support of FR1 licensed FDD from/to FR1 licensed TDD.  NOTE 1: Support of CCS with DL DCI formats 1\_1/1\_2 is according to *crossCarrierScheduling-SameSCS*.  NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 1\_3. | BC | No | N/A | N/A |
| ***multiCell-PUSCH-DCI-0-3-DiffSCS-r18***  Indicates whether the UE supports monitoring DCI format 0\_3 for UL scheduling where scheduling cell is not included in a set of cells in same PUCCH group and supports Type-2 for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields. Scheduling cell is PCell or SCell, and a set of cells includes only SCells.  The number of unicast UL DCIs to process per N consecutive slots of scheduling cell for a set of cells configured for multi-cell PUSCH scheduling by DCI format 0\_3:  - For FDD scheduling cell  - Up to one DCI format 0\_3 for the set of cells and,  - Up to one unicast UL DCI formats 0\_0/0\_1/0\_2 (if supported) for each of the cells  - For a cell in a set of cells, no more than one DCI scheduling PUSCH for the cell  - For TDD scheduling cell  - Up to two DCI format 0\_3 for the set of cells and,  - Up to two unicast UL DCI formats 0\_0/0\_1/0\_2 (if supported) for each of the cells  - For a cell in a set of cells, no more than two DCI scheduling PUSCH for the cell  - For low-to-high SCS, N = 1.  - For high-to-low SCS, N is based on pair of (scheduling CC SCS, scheduled CC SCS): N=2 for (30,15), (60,30), (120,60) and N=4 for (60,15), (120,30), N = 8 for (120,15).  The UE monitors SS set(s) for DCI format 0\_3 for a set of cells when search space set configurations for DCI format 0\_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells.  The capability signalling comprises of the following parameters:  *-* *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have different SCS. The set of co-scheduled cells share the same SCS and carrier type.  *-* *combinationCarrierType-r18* indicates scheduling cell and co-scheduled cells have same or different carrier type (FR1 licensed FDD or FR1 licensed TDD or FR1 unlicensed TDD or FR2-1 or FR2-2).  *-* *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE.  *-* *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups.  *-* *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell.  *-* *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes.  NOTE 1: Support of CCS with UL DCI formats 0\_1/0\_2 is according to *crossCarrierSchedulingUL-DiffSCS-r16*.  NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 0\_3. | BC | No | N/A | N/A |
| ***multiCell-PUSCH-DCI-0-3-SameSCS-r18***  Indicates whether the UE supports monitoring DCI format 0\_3 for UL scheduling with same SCS between scheduling cell and cells in the set and supports Type-2 for 'Antenna port(s)', 'Precoding information and number of layers' and 'SRS resource indicator' fields. Scheduling cell is PCell if set of cells includes PCell, and scheduling cell is PCell or an SCell if set of cells includes only SCells.  The number of unicast UL DCIs to process per slot of scheduling cell for a set of cells configured for multi-cell PUSCH scheduling by DCI format 0\_3:  - For FDD scheduling cell:  - Up to one DCI format 0\_3 for the set of cells and,  - Up to one unicast UL DCI formats 0\_0/0\_1/0\_2 (if supported) for each of the cells  - For a cell in a set of cells, no more than one DCI scheduling PUSCH for the cell  - For TDD scheduling cell:  - Up to two DCI format 0\_3 for the set of cells and,  - Up to two unicast UL DCI formats 0\_0/0\_1/0\_2 (if supported) for each of the cells  - For a cell in a set of cells, no more than two DCI scheduling PUSCH for the cell.  The UE monitors SS set(s) for DCI format 0\_3 for a set of cells for the following cases:  - Search space set configuration for DCI format 0\_3 for the set of cells is provided only on the scheduling cell, or;  - Search space set configurations for DCI format 0\_3 for the set of cells with the same *searchSpaceId* are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being NOT in the set of cells.  - A UE supporting this capability can additionally report *supportOfSearchSpace-r18* whether the UE support search space set configurations for DCI format 0\_3 for the set of cells with the same searchSpaceId are provided on both the scheduling cell and a serving cell in the set of cells with the scheduling cell being in the set of cells.  The capability signalling comprises of the following parameters:  *-* *coScheduledCellSCS-r18* indicates scheduling cell and co-scheduled cells have same SCS and carrier type.  *-* *maxNumberCoScheduledCell-r18* indicates the max number of co-scheduled cells per set of cells supported by UE.  *-* *maxNumberSetsOfCellAcrossPUCCH-Group-r18* indicates the max number of sets of cells supported by UE across PUCCH groups.  *-* *maxNumberSetsOfCellScheduling-r18* indicates the max number of sets of cells supported by UE for a same scheduling cell.  *-* *coScheduledCellIndicationScheme-r18* indicates the supported co-scheduled cell indication schemes.  When multiple *coScheduledCellSCS-r18* values are reported and if scheduling cell is not included in the set of cells, support multi-cell PUSCH scheduling by DCI format 0\_3 from one carrier type, indicated in *coScheduledCellSCS-r18*, to another carrier type, indicated in *coScheduledCellSCS-r18*, for the following scheduling cases:  - FR1 licensed TDD to FR1 unlicensed TDD  - FR2-1 to FR2-2  - UE can additionally report *licensed-fdd-tdd-fr1* indicating the support of FR1 licensed FDD from/to FR1 licensed TDD.  NOTE 1: Support of CCS with UL DCI formats 0\_1/0\_2 is according to *crossCarrierScheduling-SameSCS*.  NOTE 2: 480/960 kHz SCS is not applicable to multi-cell scheduling with DCI format 0\_3. | BC | No | N/A | N/A |

1. ***Modified section***

#### 4.2.7.7 *FeatureSetUplink* parameters

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***additionalTime-CB-8TxPUSCH-r18***  Indicates whether the UE supports 8Tx PUSCH additional timeline for codebook based 8TxPUSCH.  A UE supporting this feature shall also indicate support of *codebook-8TxBasic-r18*.  NOTE: UE reports the processing capability independently for each SCS, where SCS is the minimum between SCS of the scheduling DCI and SCS of the scheduled PUSCH. This capability is reported by UE only when UE reports {5,6,7,8} as the maximum number of PUSCH MIMO layers. | FS | No | N/A | N/A |
| ***additionalTime-NonCB-8TxPUSCH-r18***  Indicates whether the UE supports 8Tx PUSCH additional timeline for non-codebook based 8TxPUSCH.  A UE supporting this feature shall also indicate support of *nonCodebook-8TxPUSCH-r18*.  NOTE: UE reports the processing capability independently for each SCS, where SCS is the minimum between SCS of the scheduling DCI and SCS of the scheduled PUSCH. This capability is reported by UE only when UE reports {5,6,7,8} as the maximum number of PUSCH MIMO layers. | FS | No | N/A | N/A |
| ***scalingFactor***  Indicates the scaling factor to be applied to the band in the max data rate calculation as defined in 4.1.2. Value f0p4 indicates the scaling factor 0.4, f0p75 indicates 0.75, and so on. If absent, the scaling factor 1 is applied to the band in the max data rate calculation. | FS | No | N/A | N/A |
| ***cbgPUSCH-ProcessingType1-DifferentTB-PerSlot-r16***  Defines whether the UE capable of processing time capability 1 supports CBG based transmission with one or with up to two or with up to four or with up to seven unicast PUSCHs per slot per CC. | FS | No | N/A | N/A |

#### 4.2.7.8 *FeatureSetUplinkPerCC* parameters

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***supportedSubCarrierSpacingUL***  Defines the supported sub-carrier spacing for UL by the UE, as defined in 4.2-1 of TS 38.211 [6], indicating the UE supports simultaneous transmission with same or different numerologies in CA, or indicating the UE supports different numerologies on NR UL and SUL within one cell. Support of simultaneous transmissions with same numerology for intra-band NR CA including both contiguous and non-contiguous is mandatory with capability in both FR1 and FR2. Support of simultaneous transmission with two different numerologies between FR1 band(s) and FR2 band(s) in UL is mandatory with capability if UE supports inter-band NR CA including both FR1 band(s) and FR2 band(s). Support of simultaneous transmission with different numerologies in CA for other cases is optional. | FSPC | CY | N/A | N/A |
| ***twoPUSCH-CB-MultiDCI-STx2P-AdditionalTime-r18***  Indicates whether the UE supports additional timeline to process multiple TBs for codebook multi-DCI based STx2P PUSCH+PUSCH for DG+DG.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18*.  NOTE: This feature can also be applied for CG+DG if UE can support *twoPUSCH-CB-MultiDCI-STx2P-CG-DG-r18*. | FSPC | No | N/A | FR2 only |
| ***twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18***  Indicates whether the UE supports multi-DCI based STx2P PUSCH+PUSCH for codebook-based PUSCH with fully overlapping PUSCHs in time and non-overlapping in frequency and two SRS resource sets with usage set to 'codebook' associated with two coresetPoolIndex values***.***  *-* *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set. If value *n4* is reported, the UE also reports value *n4* in *ul-FullPwrMode2-MaxSRS-ResInSet-r16*.  *-* *maxNumberLayerOverlapping-r18* indicates the maximum number of layers of each PUSCH of PUSCH+PUSCH overlapping in time domain.  *-* *maxNumberNZP-PUSCH-Overlapping-r18* indicates the maximum number of NZP PUSCH ports for each PUSCH of PUSCH+PUSCH overlapping in time domain.  *-* *maxNumberPUSCH-PerCORESET-PerSlot-r18* indicates the maximum number of PUSCHs per CORESETPoolIndex per slot  *-* *maxNumberTotalLayerOverlapping-r18* indicates the maximum total number of layers across two overlapping PUSCH.  *-* *maxNumberSRS-AntennaPortsPerSet-r18* indicates the maximum number of SRS antenna ports for each SRS resource in each SRS resource set.  A UE supporting this feature shall also indicate support of *mimo-CB-PUSCH.*  NOTE: Processing support of two SRS resource sets with usage set to 'codebook' associated with two *coresetPoolIndex* values is not supported in any CC if at least one CC is configured with two values of *CORESETPoolIndex*. | FSPC | No | N/A | FR2 only |
| ***twoPUSCH-MultiDCI-STx2P-OutOfOrder-r18***  Indicates whether the UE supports out-of-order operation for multi-DCI based STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* or *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18.* | FSPC | No | N/A | FR2 only |
| ***twoPUSCH-MultiDCI-STx2P-TwoTA-r18***  Indicates whether the UE supports two TAs for multi-DCI STx2P PUSCH+PUSCH.  A UE supporting this feature shall also indicate support of *multiDCI-IntraCellMultiTRP-TwoTA-r18*, *multiDCI-InterCellMultiTRP-TwoTA-r18*, *twoPUSCH-CB-MultiDCI-STx2P-DG-DG-r18* or *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.  NOTE: A UE that supports this feature can transmit PUSCH in two consecutive slots using different TA without reducing the later slot. | FSPC | No | N/A | N/A |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-AdditionalTime-r18***  Indicates whether the UE supports additional timeline to process multiple TBs for non-codebook multi-DCI based STx2P PUSCH+PUSCH for DG+DG.  A UE supporting this feature shall also indicate support of *twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18*.  NOTE: This feature can also be applied for CG+DG if UE can support *twoPUSCH-NonCB-MultiDCI-STx2P-CG-DG-r18*. | FSPC | No | N/A | FR2 only |
| ***twoPUSCH-NonCB-MultiDCI-STx2P-DG-DG-r18***  Indicates whether the UE supports multi-DCI based STx2P PUSCH+PUSCH for noncodebook-based PUSCH with fully overlapping PUSCHs in time and non-overlapping in frequency and two SRS resource sets with usage set to 'noncodebook' associated with two *coresetPoolInde* values.  *-* *maxNumberSRS-ResourcePerSet-r18* indicates the maximum number of SRS resources in one SRS resource set.  *-* *maxNumberLayerOverlapping-r18* indicates the maximum number of layers of each PUSCH of PUSCH+PUSCH overlapping in time domain.  *-* *maxNumberSimulSRS-ResourcePerSet-r18* indicates the maximum number of simultaneously transmitted SRS resources in one symbol per SRS resource set.  *-* *maxNumberPUSCH-PerCORESET-PerSlot-r18* indicates the maximum number of PUSCHs per CORESETPoolIndex per slot  *-* *maxNumberTotalLayerOverlapping-r18* indicates the maximum total number of layers across two overlapping PUSCH.  A UE supporting this feature shall also indicate support of *mimo-NonCB-PUSCH.*  NOTE: Processing support of two SRS resource sets with usage set to 'codebook' associated with two *coresetPoolIndex* values is not supported in any CC if at least one CC is configured with two values of *CORESETPoolIndex*. | FSPC | No | N/A | FR2 only |