**3GPP TSG- Meeting #**

**Fukuoka, , -**

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  | **38.306** | **CR** | DraftCR | **rev** | **-** | **Current version:** | **R2-244527** |  |
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| *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)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network | **X** | Core Network |  |

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| ***Title:*** | Updated to UE FeMob LTM capabilities | | | | | | | | | |
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| ***Source to WG:*** | Intel Corporation | | | | | | | | | |
| ***Source to TSG:*** |  | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NR\_Mob\_enh2-Core, | | | | |  | ***Date:*** | | | 2024-04-25 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | - |  | | | | | ***Release:*** | | | Rel-18 |
|  | *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)* | |
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| ***Reason for change:*** | | Capture the agreements from R2-126 on LTM related capabilities   * RAN2 assumes that the target band for RACH transmission is any supported band within or outside the band combination. This can be revisited if RAN1 or RAN4 indicates otherwise in the future * RAN2 pursues signalling solution where the target bands for RACH transmission are signalled per feature set, and further discuss how the target bands are indicated, by pointing to *appliedFreqBandList*. * Remove LTM capability from current TS | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | 1. Move the following capabilities to FS:  pdcch-RACH-AffectedBandsList-r18  pdcch-RACH-PrepTimeList-r18  pdcch-RACH-SwitchingTimeList-r18  Move the following capabilities to FS UL:  rach-EarlyTA-BandList-r18  2. Update the target band for RACH transmission to be supported bands filtered according to *frequencyBandListFilter*  3. Deleted the LTM RAN2 capabilities | | | | | | | | |
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| ***Consequences if not approved:*** | | Agreements in R2-126 will not be captured in specifications. | | | | | | | | |
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| ***Clauses affected:*** | | 4.2.7.1, 4.2.7.5, 4.2.7.7, 4.2.9 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS38.331 CR ... | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

***1st Modified section***

### 4.2.7 Physical layer parameters

#### 4.2.7.1 *BandCombinationList* parameters

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***bandEUTRA***  Defines supported EUTRA frequency band by EUTRA frequency band number, as specified in TS 36.101 [14]. | Band | Yes | N/A | N/A |
| ***bandList***  Each entry of the list should include at least one bandwidth class for UL or DL. | BC | Yes | N/A | N/A |
| ***bandNR***  Defines supported NR frequency band by NR frequency band number, as specified in TS 38.101-1 [2] and TS 38.101-2 [3]. | Band | Yes | N/A | N/A |
| ***ca-BandwidthClassDL-EUTRA***  Defines for DL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 36.101 [14]. When all FeatureSetEUTRA-DownlinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. | Band | No | N/A | N/A |
| ***ca-BandwidthClassDL-NR***  Defines for DL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 38.101-1 [2] and TS 38.101-2 [3]. When all FeatureSetDownlinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. For FR1, the value 'F' shall not be used as it is invalidated in TS 38.101-1 [2]. | Band | No | N/A | N/A |
| ***ca-BandwidthClassDL-NR-r17***  Defines for DL, additional FR2 CA bandwidth class (e.g., R, S, T, U ) as specified in TS 38.101-2 [3]. When all FeatureSetDownlinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent.  If this field is indicated for a band, the UE shall also set *ca-BandwidthClassDL-NR* (without suffix) to the highest bandwidth class from the same fallback group that it supports in this band combination and with the given bandwidth combination set ID in case that the bandwidth combination consists of a sub-set of carriers and the same or a sub-set of carrier bandwidths on those carriers with respect to the bandwidth combination corresponding to *ca-BandwidthClassDL-NR-r17*; otherwise, it shall omit the *ca-BandwidthClassDL-NR* (without suffix) field.  NOTE: If the UE includes ca-BandwidthClassDL-NR-r17 in a BandParameter the network ignores the ca-BandwidthClassDL-NR therein, if signalled. | Band | No | N/A | FR2 only |
| ***ca-BandwidthClassUL-EUTRA***  Defines for UL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 36.101 [14]. When all FeatureSetEUTRA-UplinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. | Band | No | N/A | N/A |
| ***ca-BandwidthClassUL-NR***  Defines for UL, the class defined by the aggregated transmission bandwidth configuration and maximum number of component carriers supported by the UE, as specified in TS 38.101-1 [2] and TS 38.101-2 [3]. When all FeatureSetUplinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent. For FR1, the value 'F' shall not be used as it is invalidated in TS 38.101-1 [2]. | Band | No | N/A | N/A |
| ***ca-BandwidthClassUL-NR-r17***  Defines for UL, additional FR2 CA bandwidth class (e.g., R, S, T, U ) as specified in TS 38.101-2 [3]. When all FeatureSetUplinkId:s in the corresponding FeatureSetsPerBand are zero, this field is absent.  If this field is indicated for a band, the UE shall also set *ca-BandwidthClassUL-NR* (without suffix) to the highest bandwidth class from the same fallback group that it supports in this band combination and with the given bandwidth combination set ID in case that the bandwidth combination consists of a sub-set of carriers and the same or a sub-set of carrier bandwidths on those carriers with respect to the bandwidth combination corresponding to *ca-BandwidthClassUL-NR-r17*; otherwise, it shall omit the *ca-BandwidthClassUL-NR* (without suffix) field.  NOTE: If the UE includes *ca-BandwidthClassUL-NR-r17* in a BandParameter the network ignores the *ca-BandwidthClassUL-NR* therein, if signalled. | Band | No | N/A | FR2 only |
| ***ca-ParametersEUTRA***  Contains the EUTRA part of band combination parameters for a given (NG)EN-DC/NE-DC band combination. | BC | No | N/A | N/A |
| ***ca-ParametersNR***  Contains the NR band combination parameters for a given (NG)EN-DC/NE-DC and/or NR CA band combination. | BC | No | N/A | N/A |
| ***ca-ParametersNRDC***  Indicates whether the UE supports NR-DC for the band combination. It contains the NR band combination parameters applicable across MCG and SCG. If the band combination includes both FR1 and FR2 bands, a UE indicating support for NR-DC shall support synchronous NR-DC configuration where all serving cells of the MCG are in FR1 and all serving cells of the SCG are in FR2. | BC | No | N/A | N/A |
| ***dormancyIndicationSCell-r18***  Indicates whether the UE supports SCell dormancy indication sent within the active time on PCell with DCI format 0\_3/1\_3. One dormant BWP and one non-dormant BWP is supported per carrier. More than one non-dormant BWP per carrier is supported only if *upto4* in *bwp-SameNumerology* or *upto4* in *bwp-DiffNumerology* is also supported.  One dormant BWP and one non-dormant BWP are UE specific BWPs even for UEs not supporting *upto2* in *bwp-SameNumerology* or *upto4* in *bwp-SameNumerology*.  A UE supporting CA shall also indicate support at least one *of multiCell-PDSCH-DCI-1-3-SameSCS-r18, multiCell-PDSCH-DCI-1-3-DiffSCS-r18, multiCell-PUSCH-DCI-0-3-SameSCS-r18* and *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*. | BC | No | N/A | N/A |
| ***featureSetCombination***  Indicates the feature set that the UE supports on the NR and/or MR-DC band combination by FeatureSetCombinationId. | BC | N/A | N/A | N/A |
| ***featureSetCombinationDAPS-r16***  Indicates the feature set that the UE supports for DAPS handover on the NR band combination by FeatureSetCombinationId. A UE shall include this field if intra-frequency or inter-frequency DAPS handover is supported for this band combination. For a band entry where it indicates the support for intra-frequency DAPS handover, the UE shall include at least two CCs and shall support intra-frequency DAPS handover between any CC pair within the same band entry. If the number of CCs within a band combination is more than one and if inter-frequency DAPS handover is supported, UE shall support inter-frequency DAPS handover between every CC pair in the same or different band entries in the band combination, except for the CC pair within a band entry with bandwidth class A. A feature set including *intraFreqDAPS-r16* can only be referred to by *featureSetCombinationDAPS-r16*, not by *featureSetCombination*. A feature set without *intraFreqDAPS-r16* is only applied to inter-freq DAPS handover if it is referred to by *featureSetCombinationDAPS*. Both feature sets with and without *intraFreqDAPS-r16* can be referred to by the same *featureSetCombinationDAPS-r16*. | BC | N/A | N/A | N/A |
| ***intrabandConcurrentOperationPowerClass-r16***  Indicates the power class, of a particular Uu band combination and the intra-band PC5 band combination(s) on which the UE supports transmission of PC5 simultaneous with Uu uplink (as indicated by *supportedTxBandCombListPerBC-Sidelink-r16*). The leading/leftmost value corresponds to the band combination of the particular Uu band combination and the first intra-band PC5 band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16*, the next value corresponds to the band combination of the particular Uu band combination and the second intra-band PC5 band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16* and so on. If this power class is higher than the power class that the UE supports on the individual Uu or PC5 interface of this band combination, the latter determines maximum TX power available in each interface. | BC | No | N/A | N/A |
| ***mrdc-Parameters***  Contains the band combination parameters for a given (NG)EN-DC/NE-DC band combination. | BC | No | N/A | N/A |
| ***ne-DC-BC***  Indicates whether the UE supports NE-DC for the band combination. | BC | No | N/A | N/A |
| ***powerClass, powerClass-v1610***  Indicates power class the UE supports when operating according to this band combination. If the field is absent, the UE supports the default power class. If this power class is higher than the power class that the UE supports on the individual bands of this band combination (*ue-PowerClass* in *BandNR*), the latter determines maximum TX power available in each band. The UE sets the power class parameter only in band combinations that are applicable as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. This capability is not applicable to IAB-MT. | BC | No | N/A | FR1 only |
| ***powerClassNRPart-r16***  Indicates NR part power class the UE supports when operating according to this band combination.  This field only applies for MR-DC BCs containing only single CC or intra-band CA in NR side in this release. | BC | No | N/A | FR1 only |
| ***scalingFactorTxSidelink-r16, scalingFactorRxSidelink-r16***  Indicates, for a particular Uu band combination, the scaling factor for the PC5 band combination(s) on which the UE supports transmission/reception of PC5 simultaneous with Uu uplink/downlink respectively (as indicated by *supportedTxBandCombListPerBC-Sidelink-r16* / *supportedRxBandCombListPerBC-Sidelink-r16*). The leading / leftmost value corresponds to the first band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16* / *supportedRxBandCombListPerBC-Sidelink-r16*, the next value corresponds to the second band combination included in *BandCombinationListSidelinkEUTRA-NR* which is indicated with value 1 by *supportedTxBandCombListPerBC-Sidelink-r16* / *supportedRxBandCombListPerBC-Sidelink-r16* and so on. For each value of *ScalingFactorSidelink-r16*, value f0p4 indicates the scaling factor 0.4, f0p75 indicates 0.75, and so on. | BC | No | N/A | N/A |
| ***srs-SwitchingAffectedBandsListNR-r17***  Indicates which other bands in the band combination are affected by the SRS switch and the dropping rules / timelines apply to the indicated bands when SRS carrier switching on target CC and other UL on source CC are overlapped in the same symbol. UE indicating support of this feature shall indicate support of *srs-CarrierSwitch*.  NOTE: For each "source-target" pair (as indicated by *srs-SwitchingTimesListNR*), the UE can indicate which other bands in the band combination are affected by the SRS switch. | BC | No | N/A | N/A |
| ***SRS-SwitchingTimeNR***  Indicates the interruption time on DL/UL reception within a NR band pair during the RF retuning for switching between a carrier on one band and another (PUSCH-less) carrier on the other band to transmit SRS. *switchingTimeDL/ switchingTimeUL*:n0us represents 0 us, n30us represents 30us, and so on. *switchingTimeDL/ switchingTimeUL* is mandatory present if switching between the NR band pair is supported, otherwise the field is absent. It is signalled per pair of bands per band combination. | FD | No | N/A | N/A |
| ***SRS-SwitchingTimeEUTRA***  Indicates the interruption time on DL/UL reception within a EUTRA band pair during the RF retuning for switching between a carrier on one band and another (PUSCH-less) carrier on the other band to transmit SRS. *switchingTimeDL/ switchingTimeUL:* n0 represents 0 OFDM symbols, n0dot5 represents 0.5 OFDM symbols, n1 represents 1 OFDM symbol and so on. *switchingTimeDL/ switchingTimeUL* is mandatory present if switching between the EUTRA band pair is supported, otherwise the field is absent. It is signalled per pair of bands per band combination. | FD | No | N/A | N/A |
| ***srs-TxSwitch, srs-TxSwitch-v1610***  Defines whether UE supports SRS for DL CSI acquisition as defined in clause 6.2.1.2 of TS 38.214 [12]. The capability signalling comprises of the following parameters:  - *supportedSRS-TxPortSwitch* indicates SRS Tx port switching pattern supported by the UE, which is mandatory with capability signalling. The indicated UE antenna switching capability of ′xTyR′ corresponds to a UE, capable of SRS transmission on ′x′ antenna ports over total of ′y′ antennas, where ′y′ corresponds to all or subset of UE receive antennas, where 2T4R is two pairs of antennas. *supportedSRS-TxPortSwitch-v1610*, which is optional to report, indicates downgrading configuration of SRS Tx port switching pattern. If the UE indicates the support of downgrading configuration of SRS Tx port switching pattern using *supportedSRS-TxPortSwitch-v1610*, the UE shall report the values for this as below, based on what is reported in *supportedSRS-TxPortSwitch*.   |  |  | | --- | --- | | *supportedSRS-TxPortSwitch* | *supportedSRS-TxPortSwitch-v1610* | | *t1r2* | *t1r1-t1r2* | | *t1r4* | *t1r1-t1r2-t1r4* | | *t2r4* | *t1r1-t1r2-t2r2-t2r4* | | *t2r2* | *t1r1-t2r2* | | *t4r4* | *t1r1-t2r2-t4r4* | | *t1r4-t2r4* | *t1r1-t1r2-t2r2-t1r4-t2r4* |   - *txSwitchImpactToRx* indicates the lowest band entry number of the UL group (see *txSwitchWithAnotherBand*) that impacts the DL of this band entry;  - *txSwitchWithAnotherBand* indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE) that impact each other's UL (i.e. SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry.  For *txSwitchImpactToRx* and *txSwitchWithAnotherBand*, value 1 means first entry, value 2 means second entry and so on. The UE may include *txSwitchImpactToRx* and *txSwitchWithAnotherBand* for a band entry even if *supportedSRS-TxPortSwitch* is set to 'notSupported' for that band entry. All DL and UL that switch together indicate the same entry number.  The entry number is the band entry number in a band combination. The UE is restricted not to include fallback band combinations for the purpose of indicating different SRS antenna switching capabilities.  NOTE: The band with UL includes a band associated with *FeatureSetUplinkId* set to 0 corresponding to the support of SRS-SwitchingTimeNR. | BC | FD | N/A | N/A |
| ***srs-AntennaSwitching8T8R-r18***  Indicates whether the UE supports SRS 8T8R for antenna switching. The capability comprises the following parameters:  - *antennaSwitch8T8R-r18* indicates the supporting type of 8T8R for antenna switching.  - *downGradeConfig-r18* indicates a combination of supported xTyRs of downgrade antenna switching configurations. It includes 11-bit bitmap, where starting from the leading / leftmost bit (bit 0), each bit corresponds to {1T1R, 1T2R, 1T4R, 1T6R, 1T8R, 2T2R, 2T4R, 2T6R, 2T8R, 4T4R, 4T8R}.  - *entryNumberAffect-r18* indicates the lowest band entry number of the UL group (see *entryNumberSwitch-18*) that impacts the DL of this band entry.  - *entryNumberSwitch-r18* indicates the lowest band entry of the UL group, which is defined as band entries with UL (see NOTE 1) that impact each other's UL (i.e. SRS TX port switching on any of the cells in the group will impact UL on all the cells in the group). This parameter is absent if an UL group contains only one band entry.  The UE supporting this feature shall indicate support of *supportedSRS-Resources.*  For *entryNumberAffect-r18* and *entryNumberSwitch-r18*, value 1 means first entry, value 2 means second entry and so on. The UE may include *entryNumberAffect-r18/ entryNumberSwitch-18* for a band entry even if *antennaSwitch8T8R-r18 is* absent for that band entry. All DL and UL that switch together indicate the same entry number.  The entry number is the band entry number in a band combination. The UE is restricted not to include fallback band combinations for the purpose of indicating different SRS antenna switching capabilities.  NOTE 1: The band with UL includes a band associated with *FeatureSetUplinkId* set to 0 corresponding to the support of *SRS-SwitchingTimeNR*.  NOTE 2: UE reports support of SRS with 8 Tx ports and Comb8 mapping —antenna switching via *srs-combEight-r17*. | BC | No | N/A | N/A |
| ***srs-AntennaSwitchingBeyond4RX-r17***  Indicates whether the UE supports SRS Antenna switching for more than 4 Rx. The capability signalling comprises the following parameters:  *-* *supportedSRS-TxPortSwitchBeyond4Rx-r17* indicates a combination of supported xTyRs. It includes 11-bit bitmap, where starting from the leading / leftmost bit (bit 0), each bit corresponds to {t1r1, t2r2, t1r2, t4r4, t2r4, t1r4, t2r6, t1r6, t4r8, t2r8, t1r8}. For any indicated value, x shall be equal to or smaller than the one associated with the largest y.  *-* *entryNumberAffectBeyond4Rx-r17* indicates the entry number of the first-listed band with UL in the band combination that affects this DL.  *-* *entryNumberSwitchBeyond4Rx-r17* indicates the entry number of the first-listed band with UL in the band combination that switches together with this UL.  The UE indicating support of this shall indicate support of *srs-TxSwitch.*  NOTE: If reported for the same values of xTyR in *supportedSRS-TxPortSwitchBeyond4Rx-r17* as reported with *supportedSRS-TxPortSwitch*/*supportedSRS-TxPortSwitch-v1610*, the reported values for *entryNumberAffectBeyond4Rx-r17* and *entryNumberSwitchBeyond4Rx-r17* are not valid. | BC | No | N/A | N/A |
| ***supportedAggBW-FR2-r17***  Indicates the supported maximum aggregated intra-band bandwidth for TDD DL CCs and TDD UL CCs respectively in the FR2 CA bands of the band combination. It is also applicable to fallback band combinations of FR2 CA except for a single CC (i.e. non-CA) case. It is only applicable to FR2 CA band with FBG5 R2-R12 BW classes. UE indicating this shall report at least one *featureSetPerDownlinkCC* and *featureSetPerUplinkCC* (if applicable)with 200 MHz, and the UE is expected to support any combination of 100/200MHz carriers associated with the reported BW class (and as per TS 38.101-2 [34]) as long as the aggregated bandwidth of the configured carriers by the network does not exceed *supportedAggBW-FR2-r17****.*** | BC | No | N/A | FR2 only |
| ***supportedBandwidthCombinationSet***  Defines the supported bandwidth combination set for a band combination as defined in TS 38.101-1 [2], TS 38.101-2 [3] and TS 38.101-3 [4]. For NR SA CA, NR-DC, inter-band (NG)EN-DC without intra-band (NG)EN-DC component, inter-band NE-DC without intra-band NE-DC component and intra-band (NG)EN-DC/NE-DC with additional inter-band NR CA component, the field defines the bandwidth combinations for the NR part of the band combination. For intra-band (NG)EN-DC/NE-DC without additional inter-band NR and LTE CA component, the field indicates the supported bandwidth combination set applicable to intra-band (NG)EN-DC/NE-DC band combination. This field is not applicable to source and target cells in intra-frequency DAPS handover.  Field encoded as a bit map, where bit N is set to "1" if UE supports Bandwidth Combination Set N for this band combination as defined in the TS 38.101-1 [2], TS 38.101-2 [3] and TS 38.101-3 [4]. The leading / leftmost bit (bit 0) corresponds to the Bandwidth Combination Set 0, the next bit corresponds to the Bandwidth Combination Set 1 and so on. It is mandatory if  - the band combination has more than one NR carrier (at least one SCell in an NR cell group);  - or is an intra-band (NG)EN-DC/NE-DC combination without additional inter-band NR and LTE CA component;  - or both.  The corresponding bits of Bandwidth Combination Set 4 and Bandwidth Combination Set 5 shall not both be set to "1" for the same band combination. | BC | CY | N/A | N/A |
| ***supportedBandwidthCombinationSetIntraENDC***  Defines the supported bandwidth combination set for a band combination that allows configuration of at least one EUTRA serving cell and at least one NR serving cell in the same band, as defined in the TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1.  - For intra-band (NG)EN-DC with additional inter-band CA component(s) of LTE and/or NR, the field defines the bandwidth combinations for the intra-band (NG)EN-DC component.  - For intra-band NE-DC with additional inter-band CA component(s) of LTE and/or NR, the field defines the bandwidth combinations for the intra-band NE-DC component.  Field encoded as a bit map, where bit N is set to "1" if UE support Bandwidth Combination Set N for this band combination as defined in the TS 38.101-3 [4]. The leading / leftmost bit (bit 0) corresponds to the Bandwidth Combination Set 0, the next bit corresponds to the Bandwidth Combination Set 1 and so on.  - It is mandatory if the band combination is an intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component.  - It is optional if the band combination is an intra-band (NG)EN-DC/NE-DC combination without supporting UL in both the bands of the intra-band (NG)EN-DC/NE-DC UL part. If not included, the network assumes the UE supports BCS0 as defined in TS 38.101-3 [4], table 5.3B.1.2-1 and table 5.3B.1.3-1 for the intra-band (NG)EN-DC/NE-DC. | BC | CY | N/A | N/A |
| ***supportedTxBandCombListPerBC-Sidelink-r16, supportedRxBandCombListPerBC-Sidelink-r16***  Indicates, for a particular Uu band combination, the PC5 band combination(s) on which the UE supports transmission/reception of PC5 simultaneously with Uu uplink/downlink respectively. The leading / leftmost bit (bit 0) corresponds to the first band combination included in *BandCombinationListSidelinkEUTRA-NR*, the next bit corresponds to the second band combination included in *BandCombinationListSidelinkEUTRA-NR* and so on. with value 1 indicating simultaneous transmission/reception is supported. | BC | No | N/A | N/A |
| ***supportedBandCombListPerBC-SL-RelayDiscovery-r17, supportedBandCombListPerBC-SL-NonRelayDiscovery-r17***  Indicates, for a particular Uu band combination, the PC5 Relay discovery and non-Relay discovery band combination(s) on which the UE supports simultaneous transmission/reception of PC5 data (Relay discovery or non-Relay discovery) and Uu uplink/downlink respectively.  The leading / leftmost bit (bit 0) corresponds to the first band combination included in *supportedBandCombinationListSL-RelayDiscovery-r17/supportedBandCombinationListSL-NonRelayDiscovery-r17*, the next bit corresponds to the second band combination included in *supportedBandCombinationListSL-RelayDiscovery-r17/supportedBandCombinationListSL-NonRelayDiscovery-r17* and so on. with value 1 indicating simultaneous transmission/reception is supported. | BC | No | N/A | N/A |
| ***supportedBandCombListPerBC-SL-U2U-RelayDiscovery-r18***  Indicates, for a particular Uu band combination, the PC5 U2U relay discovery band combination(s) on which the UE supports simultaneous transmission/reception of PC5 data (U2U relay discovery) and Uu uplink/downlink respectively.  The leading / leftmost bit (bit 0) corresponds to the first band combination included in *supportedBandCombinationListSL-U2U-RelayDiscovery-r18*, the next bit corresponds to the second band combination included in *supportedBandCombinationListSL-U2U-RelayDiscovery-r18* and so on with value 1 indicating simultaneous transmission/reception is supported. | BC | No | N/A | N/A |
| ***switchingPeriodRestriction-r18***  Indicates whether the same value of switching period is applicable to the fallback band combinations for a given band combination supporting UL Tx switching across up to 4 bands.  When the field is included for a band combination, it represents the largest value, i.e. 210us is supported for each band pair in all fallback band combinations.  When the field is absent, it represents the same switching period reported for each band pair in this band combination is supported for the same band pair in all the fallback band combinations. | BC | FD | N/A | FR1 only |
| ***ULTxSwitchingBandPair-r16, ULTxSwitchingBandPair-v1700***  Indicates UE supports dynamic UL 1Tx-2Tx switching in case of inter-band CA, SUL, and (NG)EN-DC, and UL 2Tx-2Tx switching in case of inter-band CA and SUL as defined in TS 38.214 [12], TS 38.101-1 [2] and TS 38.101-3 [4]. The capability signalling comprises of the following parameters:  - *bandIndexUL1-r16* and *bandIndexUL2-r16* indicate the band pair on which UE supports dynamic UL Tx switching. *bandindexUL1*/*bandindexUL2* xx refers to the xxth band entry in the band combination. UE shall indicate support for 2-layer UL MIMO capabilities on one of the indicated two bands in each FeatureSet entry supporting UL 1Tx-2Tx switching and indicate support for 2-layer UL MIMO capabilities on both bands in each FeatureSet entry supporting UL 2T-2Tx switching, and only the band where UE supports 2-layer UL MIMO capability can work as carrier2 as defined in TS 38.101-1 [2] and TS 38.101-3 [4].  - *uplinkTxSwitchingPeriod-r16* indicates the length of UL Tx switching period of 1Tx-2Tx switching per pair of UL bands per band combination when dynamic UL Tx switching is configured, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. UE shall not report the value n210us for EN-DC band combinations. n35us represents 35 us, n140us represents 140us, and so on, as specified in TS 38.101-1 [2] and TS 38.101-3 [4].  - *uplinkTxSwitchingPeriod2T2T-r17* indicates the length of UL Tx switching period of 2Tx-2Tx switching per pair of UL bands per band combination when dynamic UL Tx switching is configured, as specified in TS 38.101-1 [2] and TS 38.101-3 [4]. n35us represents 35 us, n140us represents 140us, and so on, as specified in TS 38.101-1 [2] and TS 38.101-3 [4].  - *uplinkTxSwitching-DL-Interruption-r16* indicates that DL interruption on the band will occur during UL Tx switching, as specified in TS 38.133 [5] and in TS 36.133 [27]. UE is not allowed to set this field for the band combination of SUL band+TDD band, for which no DL interruption is allowed.  Field encoded as a bit map, where bit N is set to "1" if DL interruption on band N will occur during uplink Tx switching as specified in TS 38.133 [5] and in TS 36.133 [27]. The leading / leftmost bit (bit 0) corresponds to the first band of this band combination, the next bit corresponds to the second band of this band combination and so on. The capability is not applicable to the following band combinations, in which DL reception interruption is not allowed:  - TDD+TDD CA with the same UL-DL pattern  - TDD+TDD EN-DC with the same UL-DL pattern | BC | FD | N/A | FR1 only |
| ***uplinkTxSwitching-OptionSupport-r16***  Indicates which option is supported for dynamic UL 1Tx-2Tx switching for inter-band UL CA and (NG)EN-DC. *switchedUL* represents option 1 as specified in TS 38.214 [12], *dualUL* represents option 2 as specified in TS 38.214 [12], *both* represents both option 1 and option2 as specified in TS 38.214 [12]. UE shall not report the value *both* for (NG)EN-DC case. The field is mandatory for inter-band UL CA and (NG)EN-DC case where UE supports dynamic UL 1Tx-2Tx switching. | BC | CY | N/A | FR1 only |
| ***uplinkTxSwitching-OptionSupport2T2T-r17***  Indicates which option is supported for dynamic UL 2Tx-2Tx switching for inter-band UL CA. *switchedUL* represents option 1 as specified in TS 38.214 [12], *dualUL* represents option 2 as specified in TS 38.214 [12], *both* represents both option 1 and option2 as specified in TS 38.214 [12]. The field is mandatory for inter-band UL CA cases where UE supports dynamic UL 2Tx-2Tx switching. The UE indicating support of this feature shall indicate support of at least one common switching option between *uplinkTxSwitching-OptionSupport2T2T-r17* and *uplinkTxSwitching-OptionSupport-r16*. | BC | CY | N/A | FR1 only |
| ***uplinkTxSwitching-PowerBoosting-r16***  Indicates the support of 3dB boosting on the maximum output power for UE transmission under the operation state in which 2-port transmission can be supported on carrier2 in case of inter-band UL CA case where UE supports dynamic UL Tx switching. A UE shall only indicate this capability in case the UE supports power class 3 for inter-band UL CA for the band combination as defined in TS 38.101-1 [2]. | BC | No | N/A | FR1 only |
| ***UplinkTxSwitchingAdditionalPeriodDualUL-r18***  Indicates the UL Tx switching period for switching between a band pair and another band pair or another band, when Rel-18 UL Tx switching is configured by *uplinkTxSwitchingMoreBands-r18*. If the capability is not reported, the switching period reported in *switchingPeriodFor2T-r18* or *switchingPeriodFor1T-r18* applies, as specified in TS 38.214 [12] and TS 38.101-1 [2].  - *bandPairIndex1-r18*/*bandPairIndex2-r18* xx refers to the xxth band pair entry in the band pair list indicated by *ULTxSwitchingBandPair-r18*. The two band pairs consist of mutually exclusive bands.  - *bandIndex-r18* xx refers to the xxth band entry in this band combination, which indicates a different band from those indicated by *bandPairIndex1-r18*.  - *switchingAdditionalPeriodDualUL-r18* indicateds the length of switching period for switching between one band pair indicated by *bandPairIndex1-r18* and another band pair indicated by *bandPairIndex2-r18* or another band indicated by *bandIndex-r18*.  - *n35us* represents 35 us, *n140us* represents 140us, and so on, as specified in TS 38.101-1 [2].  A UE supporting this feature shall also indicate the support of dualUL switching option for the band pair(s) indicated in bandPairIndex1-r18/bandPairIndex2-r18. | BC | No | N/A | FR1 only |
| ***ULTxSwitchingBandPair-r18***  Indicates UE supports R18 dynamic UL Tx switching across up to 4 bands in case of inter-band CA, SUL as defined in TS 38.214 [12] and TS 38.101-1 [2]. The capability signalling comprises of the following parameters:  - *bandIndexUL1-r18* and *bandIndexUL2-r18* indicate the band pair on which UE supports dynamic UL Tx switching. *bandindexUL1*/*bandindexUL2* xx refers to the xxth UL band entry in the band combination. UE shall indicate support of 2-layer UL MIMO in *FeatureSet* on both bands for 2Tx-2Tx switching, or indicate support of 2-layer UL MIMO on one band and 1-layer MIMO on the other band for 1Tx-2Tx switching, or indicate support of 1-layer UL MIMO on both bands for 1Tx-1Tx switching.  - *uplinkTxSwitchingOptionForBandPair-r18* indicates whether switchedUL or dualUL or both switching options is supported for a given band pair as specified in TS 38.214 [12].  - *switchingPeriodFor2T-r18* indicates the length of 2Tx-2Tx switching period. *switchingPeriodFor1T-r18* indicates the length of 1Tx-2Tx switching and/or 1Tx-1Tx switching period, as specified in TS 38.101-1 [2]. n35us represents 35 us, n140us represents 140us, and so on, as specified in TS 38.101-1 [2].  - *uplinkTxSwitching-DL-Interruption-r18* indicates that DL interruption on the band will occur during UL Tx switching, as specified in TS 38.133 [5]. UE is not allowed to set this field for the band combination of SUL band+TDD band, for which no DL interruption is allowed.  Field encoded as a bit map, where bit N is set to "1" if DL interruption on band N will occur during uplink Tx switching as specified in TS 38.133 [5]. The leading / leftmost bit (bit 0) corresponds to the first band of this band combination, the next bit corresponds to the second band of this band combination and so on. The capability is not applicable to the following band combinations, in which DL reception interruption is not allowed:  - TDD+TDD CA with the same UL-DL pattern  - *SwitchingPeriodUnaffectedBandDualUL-r18* indicates for a given band pair {band X and band Y}, whether/how the switching period is to be applied on band Z (as well as band X and Y), when a UL Tx switching is triggered from band pair {band X and band Z} to band pair {band Y and band Z}, as defined in 38.101-1 [2]. If absent for band Z, the UE is not required to transmit on any UL bands during the switching period reported for the band pair of band X and band Y, as defined in 38.101-1 [2].  - *bandIndexUnaffected-r18* xx indicates the band index of band Z and refers to the xxth UL band entry in the band combination.  - *maintainedUL-Trans-r18* indicates that the UE is capable of uplink transmission on band Z and is not required to transmit on band X and Y during the switching period reported for the band pair of band X and band Y, as specified in 38.101-1 [2].  - *periodOnULBands-r18* indicates the switching period to be applied on any UL bands as specified in 38.101-1 [2]. n35us represents 35 us, n140us represents 140us, and so on. | BC | FD | N/A | FR1 only |
| ***UplinkTxSwitchingBandParameters-v1700***  Contains the UL Tx switching specific band parameters for a given band combination.  The capability signalling comprises of the following parameters:  - *bandIndex-r17* indicates a band on which UE supports dynamic UL Tx switching with another band in the band combination. *bandIndex* xx refers to the xxth band entry in the band combination.  - *uplinkTxSwitching2T2T-PUSCH-TransCoherence-r17* indicates support of the uplink codebook subset for the carrier(s) on a band capable of two antenna connectors on which UE supports dynamic UL 2Tx-2Tx switching with another band in the band combination. UE indicating support of full coherent codebook subset shall also support non-coherent codebook subset. If this field is absent,  - When 2Tx-2Tx switching between two bands is configured by *uplinkTxSwitching-2T-Mode-r17*, the per BC UE capability reported in *uplinkTxSwitching-PUSCH-TransCoherence-r16* is applied, and if this field and *uplinkTxSwitching-PUSCH-TransCoherence-r16* are both absent, the UE capability reported in *pusch-TransCoherence* is applied when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2].  - When R18 dynamic UL Tx switching is configured by *uplinkTxSwitchingMoreBands-r18*, the UE capability reported in *pusch-TransCoherence* is applied when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2].  NOTE: If *UplinkTxSwitchingBandParameters-v1700* is absent for one or more bands of a band combination, the per BC UE capability reported in *uplinkTxSwitching-PUSCH-TransCoherence-r16* is applied for corresponding band(s), and if *uplinkTxSwitching-PUSCH-TransCoherence-r16* is also absent, the UE capability reported in *pusch-TransCoherence* is applied for corresponding band(s) when uplink Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2]. | BC | No | N/A | FR1 only |
| ***uplinkTxSwitchingMinimumSeparationTime-r18***  Indicates the minimum separation time for two uplink switching on more than 2 bands within any two consecutive reference slots as specified in TS 38.214 [12]. The field is mandatory when UE supports dynamic UL Tx switching across more than two bands. | BC | CY | N/A | FR1 only |
| ***uplinkTxSwitching-PUSCH-TransCoherence-r16***  Indicates support of the uplink codebook subset when uplink 1Tx-2Tx switching is triggered between last transmitted SRS and scheduled PUSCH transmission, as specified in TS 38.101-1 [2].  UE indicating support of full coherent codebook subset shall also support non-coherent codebook subset.  If the field is absent, the supported uplink codebook subset indicated by *pusch-TransCoherence* applies when the uplink switching is triggered between last transmitted SRS and scheduled transmission. | BC | No | N/A | FR1 only |

***Next Modified section***

#### 4.2.7.5 *FeatureSetDownlink* parameters

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***aperiodicCSI-TimeRelaxation-r18***  Indicates whether the UE supports aperiodic CSI report timing relaxation for doppler codebook based on eType-II codebook and feType-II codebook. The capability signalling comprises of the following parameters:  - *valueW-r18* indicates aperiodic CSI report timing relaxation, w, for doppler codebook based on Type-II codebook. UE reports *valueW-r18*, independently for each SCS in unit of symbols. *value1* indicates 14\*(KP–1)\*d symbols, *value2* indicates 14\*KP\*d symbols, where KP is according to *scalingfactor-r18* of *eType2Doppler-r18*, or according to *scalingfactor-r18* of *feType2Doppler-r18* and d =4 (minimum periodicity of periodic CSI-RS).  - *timeRelaxation-r18* indicates Aperiodic CSI report timing relaxation for doppler codebook based on Type-II codebook.  For *vectorLengthDD-r18* = 1  1) For AP CSI-RS: (Z,Z’) = (Z2 + 14\*(K–1)\*m, Z'2)  2) For P/SP CSI-RS: (Z,Z’) = (Z2 + w, Z'2)  For *vectorLengthDD-r18* > 1 and *cap1* in *timeRelaxation-r18*:  1) For AP CSI-RS: (Z,Z’) = (Z2 + 14\*(K–1)\*m, Z’2)  2) For P/SP CSI-RS: (Z,Z’) = (Z2 + w, Z’2)  For *vectorLengthDD-r18* > 1 and *cap2* in *timeRelaxation-r18* *:*  1) For AP CSI-RS: (Z,Z’) = (Z2 + 14\*(K–1)\*m + Z'2, 2Z'2)  2) For P/SP CSI-RS: (Z,Z’) = (Z2 + w + Z'2, 2Z'2)  Z2/Z'2 are defined in Table 5.4-2 in TS 38.214 [12]. K = {4,8,12}, is the number of AP CSI-RS resources for the CMR in a CSI report setting. M = {1,2}, is the offset between two adjacent AP CSI-RS resources for the CMR in slots.  A UE supporting this feature shall also indicate at least one of *eType2Doppler-r18* or *feType2Doppler-r18*.  NOTE: A UE that supports *eType2Doppler-r18* or *feType2Doppler-r18* must signal this feature. | FS | No | N/A | N/A |
| ***additionalDMRS-DL-Alt***  Indicates whether the UE supports the alternative additional DMRS position for co-existence with LTE CRS. It is applied to 15kHz SCS and one additional DMRS case only. | FS | No | N/A | FR1 only |
| ***bwpOperationMeasWithoutInterrupt-r18***  Indicates whether the UE supports RLM/BM/BFD and gapless L3 intra-frequency measurements based on CD-SSB outside active BWP without interruptions. 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. CD-SSB outside active DL BWP but within the bandwidth of the corresponding carrier(s) to be measured can be used as the QCL source for other reference signal. UE performs L3 intra-frequency measurements without gaps based on CD-SSB, where the CD-SSB is outside the active DL BWP but is within the bandwidth of the corresponding carrier(s) to be measured.  NOTE 1: The CD-SSB is still within the bandwidth of the carrier configured by *SCS-SpecificCarrier* of *downlinkChannelBW-PerSCS-List* in *ServingCellConfig*.  NOTE 2: If a UE is configured with more than one UE-specific DL BWP configurations, the CD-SSB is within the bandwidth of at least one of the UE-specific DL BWP configurations.  NOTE 3: Void.  NOTE 4: If a UE additionally indicates support of *NeedForGap* or *NeedForGapNCSG* and/or *NeedForInterruption*, the UE shall report no gap and no interruption/no NCSG for intra-frequency measurement.  This capability is not applicable to RedCap or eRedCap UEs. | FS | No | N/A | N/A |
| ***cbgPDSCH-ProcessingType1-DifferentTB-PerSlot-r16***  Defines whether the UE capable of processing time capability 1 supports CBG based reception with one or with up to two or with up to four or with up to seven unicast PDSCHs per slot per CC. | FS | No | N/A | N/A |
| ***cbgPDSCH-ProcessingType2-DifferentTB-PerSlot-r16***  Defines whether the UE capable of processing time capability 2 supports CBG based reception with one or with up to two or with up to four or with up to seven unicast PDSCHs per slot per CC. | FS | No | N/A | N/A |
| ***crossCarrierSchedulingProcessing-DiffSCS-r16***  Indicates the UE cross carrier scheduling processing capability for DL carrier aggregation processing up to X unicast DCI scheduling for DL per scheduled CC. X is based on pair of (scheduling CC SCS, scheduled CC SCS) where a pair of (15,120), (15,60), (30,120) kHz SCS can have X = {1,2,4} while a pair of (15,30), (30,60), (60,120) kHz SCS can have X = {2}, and X applies per slot of scheduling CC. | FS | No | N/A | N/A |
| ***csi-RS-MeasSCellWithoutSSB***  Defines whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured for a cell that does not transmit SS/PBCH block. A UE that supports this feature shall also support scellWithoutSSB. | FS | No | N/A | N/A |
| ***dl-MCS-TableAlt-DynamicIndication***  Indicates whether the UE supports dynamic indication of MCS table for PDSCH. | FS | No | N/A | N/A |
| ***dmrs-MultiTRP-AdditionRows-r18***  Indicates whether the UE supports additional row(s) for antenna ports (0,2,3) for DL DMRS ports for single-DCI based M-TRP.  A UE supporting this feature shall also indicate support of *dmrs-MultiTRP-SingleDCI-r18*. | FS | No | N/A | N/A |
| ***dmrs-MultiTRP-MultiDCI-r18***  Indicates whether the UE supports Rel-18 DL DMRS with multi- DCI based M-TRP PDSCH operation.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-*r18. | FS | No | N/A | N/A |
| ***dmrs-MultiTRP-SingleDCI-r18***  Indicates whether the UE supports Rel-18 DL DMRS with single DCI based M-TRP.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-*r18. | FS | No | N/A | N/A |
| ***dynamicMulticastPCell-r17***  Indicates whether the UE supports dynamic scheduling for multicast for PCell comprised of the following functional components:  - Supports group-common PDCCH/PDSCH for multicast with CRC scrambled by G-RNTI for PCell;  - Supports CFR configuration for multicast;  - Supports CORESET and common search space configuration for multicast;  - Supports DCI format 4\_1 with CRC scrambled with G-RNTI for multicast;  - Supports inter-slot TDM between group-common PDSCH for multicast and other PDSCHs in different slots;  - Supports {2, 4, 8} times semi-static slot-level repetition for group-common PDSCH for multicast;  - Supports long DRX cycle for MBS multicast reception as specified in TS 38.321 [8].  NOTE: One G-RNTI per UE is supported for multicast reception. | FS | No | N/A | N/A |
| ***dynamicSwitchingA-r18***  Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme A by TCI selection field in DCI formats 1\_1 and 1\_2.  The UE supporting this feature shall also indicate support of *tci-SelectionDCI-r18* and *sfn-SchemeA-DynamicSwitching-r17*. | FS | No | N/A | N/A |
| ***dynamicSwitchingB-r18***  Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme B by TCI selection field in DCI formats 1\_1 and 1\_2.  The UE supporting this feature shall also indicate support of *tci-SelectionDCI-r18* and *sfn-SchemeB-DynamicSwitching-r17*. | FS | No | N/A | N/A |
| ***featureSetListPerDownlinkCC***  Indicates which features the UE supports on the individual DL carriers of the feature set (and hence of a band entry that refer to the feature set) by *FeatureSetDownlinkPerCC-Id*. The order of the elements in this list is not relevant, i.e., the network may configure any of the carriers in accordance with any of the *FeatureSetDownlinkPerCC-Id* in this list. A fallback per CC feature set resulting from the reported feature set per DL CC is not signalled but the UE shall support it. | FS | N/A | N/A | N/A |
| ***intraBandFreqSeparationDL, intraBandFreqSeparationDL-v1620***  Indicates DL frequency separation class the UE supports, which indicates a maximum frequency separation between lower edge of lowest CC and upper edge of highest CC in a frequency band, for intra-band non-contiguous CA. The UE sets the same value in the FeatureSetDownlink of each band entry within a band. The values mhzX correspond to the values XMHz defined in TS 38.101-2 [3]. It is mandatory to report for UE which supports DL intra-band non-contiguous CA in FR2.  If the UE sets the field *intraBandFreqSeparationDL-v1620* it shall set *intraBandFreqSeparationDL* (without suffix) to the nearest smaller value. | FS | CY | N/A | FR2 only |
| ***intraBandFreqSeparationDL-Only-r16***  Indicates whether the UE supports frequency separation class of DL only extension. If present, the field extends the maximum frequency separation between the lower edge of lowest CC and the upper edge of highest CC in a frequency band that the UE supports according to *intraBandFreqSeparationDL*.The frequency range extension is either above or below the frequency range indicated by *intraBandFreqSeparationDL* and extends it in contiguous manner with no frequency gap, and the network may configure contiguous or non-contiguous downlink serving cells in that extended range. The UE sets the same value in the FeatureSetDownlink of each band entry within a band. The values mhzX correspond to the values XMHz defined in TS 38.101-2 [3]. The sum of *intraBandFreqSeparationDL* and *intraBandFreqSeparationDL-Only* shall not exceed 2400 MHz. If the UE sets this field, the sum of *intraBandFreqSeparationDL* and *intraBandFreqSeparationDL-Only* shall be larger than 1400 MHz.  A UE supporting this feature shall also support *intraBandFreqSeparationDL*. | FS | No | N/A | FR2 only |
| ***intraFreqDAPS-r16***  Indicates whether UE supports intra-frequency DAPS handover, e.g. support of simultaneous DL reception of PDCCH and PDSCH from source and target cell. A UE indicating this capability shall also support intra-frequency synchronous DAPS handover, single UL transmission and cancelling UL transmission to the source cell for intra-frequency DAPS handover. The capability signalling comprises of the following parameters:  - *intraFreqAsyncDAPS-r16* indicates whether the UE supports asynchronous DAPS handover.  - *intraFreqDiffSCS-DAPS-r16* indicates whether the UE supports different SCSs in source PCell and intra-frequency target PCell in DAPS handover. The UE only includes this field if different SCSs can be supported in both UL and DL. If absent, the UE does not support either UL or DL SCS being different in DAPS handover. | FS | No | N/A | N/A |
| ***mappingTypeA-1SymbolFL-DMRS-Addition2Symbol-r18***  Indicates whether the UE supports Support 1 symbol FL DMRS and 2 additional DMRS symbols for one port for scheduling of mapping type A.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. | FS | No | N/A | N/A |
| ***maxNumberDMRS-AcrossAllDL-DCI-r18***  Indicates the maximum number of configured DMRS types for PDSCH across all DL DCI formats per cell.  A UE supporting this feature shall also indicate support of *supportedDMRS-TypeDL* and *pdsch-DMRS-Type-r18*. | FS | No | N/A | N/A |
| ***mTRP-PDCCH-Repetition-r17***  Indicates the support of intra-slot PDCCH repetition based on two linked SS sets associated with corresponding CORESETs.  This feature also includes following parameters:  - *numBD-twoPDCCH-r17* indicates the number of BDs for the two PDCCH candidates.  - *maxNumOverlaps-r17* indicates the maximum number of overlaps when one of the linked PDCCH candidates uses the same set of CCEs as an individual (unlinked) PDCCH candidate per scheduled component carrier per slot.  NOTE 1: UE supports PDCCH repetition for the following (basic) PDCCH monitoring capability: For type 1 CSS with dedicated RRC configuration, type 3 CSS, and UE-SS, the monitoring occasion is within the first 3 OFDM symbols of a slot.  NOTE 2: For *maxNumOverlaps-r17*, each unique pair of overlaps is counted as one.  NOTE 3: This feature does not include supporting two QCL-TypeD in time-domain overlapping CORESETs in FR2. | FS | No | N/A | N/A |
| ***mTRP-PDCCH-Case2-1SpanGap-r17***  Indicates the support of PDCCH repetition for PDCCH monitoring of any occasions with span gap as defined in *pdcch-MonitoringAnyOccasionsWithSpanGap* for each SCS with the following parameters:  - *supportedMode-r17* indicates supported mode of PDCCH repetition.  - *limitX-PerCC-r17*: limit (X) per CC.  - *limitX-AcrossCC-r17*: limit (X) per across all CCs.  The limit (X) is the total number of linked candidates of which the first candidate is received and the second one has not been received at any given span, where "received" and "not been received" is with respect to the end of the corresponding span of PDCCH candidate. It is indicated as a total count assuming count 1 for AL=1; 2 for AL=2; 4 for AL=4 or 8 or 16.  The UE indicates *limitX-PerCC-r17* and *limitX-AcrossCC-r17* if *supportedMode-r17* is set to *inter-span* or *both*. A candidate value "*nolimit*" does not imply BD limit can be exceeded.  The UE indicating support of this feature shall also indicate support of *pdcch-MonitoringAnyOccasionsWithSpanGap* and *mTRP-PDCCH-Repetition-r17*. | FS | No | N/A | N/A |
| ***mTRP-PDCCH-legacyMonitoring-r17, mTRP-PDCCH-legacyMonitoring-r18***  Indicates the support of PDCCH repetition with Rel-16 PDCCH monitoring capability as defined in *pdcch-Monitoring-r16* for 15kHz and 30kHz SCS with the following parameters:  - *supportedMode-r17* indicates the supported mode of PDCCH repetition.  - *limitX-PerCC-r17* indicates the limit (X) per CC.  - *limitX-AcrossCC-r17* indicates the limit (X) per across all CCs.  The limit (X) is the total number of linked candidates of which the first candidate is received and the second one has not been received at any given span, where "received" and "not been received" is with respect to the end of the corresponding span of PDCCH candidate. It is indicated as a total count assuming count 1 for AL=1; 2 for AL=2; 4 for AL=4 or 8 or 16.  The UE indicates *limitX-PerCC-r17* and *limitX-AcrossCC-r17* if *supportedMode-r17* is set to *inter-span* or *both*. A candidate value "*nolimit*" does not imply BD limit can be exceeded.  The UE indicating support of this feature shall also indicate support of *pdcch-Monitoring-r16* and *mTRP-PDCCH-Repetition-r17*.  The UE indicating support of *mTRP-PDCCH-legacyMonitoring-r18* shall also indicate support of *pdcch-MonitoringSpan2-2-r18*. | FS | No | N/A | N/A |
| ***mTRP-PDCCH-multiDCI-multiTRP-r17***  Indicates the support of simultaneous configuration of PDCCH repetition and multi-DCI based multi-TRP. Two linked PDCCH candidates are not expected to be associated with different CORESETPoolIndex values  The UE indicating support of this feature shall also indicate support of *multiDCI-MultiTRP-r16* and *mTRP-PDCCH-Repetition-r17*. | FS | 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*. | FS | No | N/A | N/A |
| ***oneFL-DMRS-ThreeAdditionalDMRS-DL***  Defines whether the UE supports DM-RS pattern for DL transmission with 1 symbol front-loaded DM-RS with three additional DM-RS symbols. | FS | No | N/A | N/A |
| ***oneFL-DMRS-TwoAdditionalDMRS-DL***  Defines support of DM-RS pattern for DL transmission with 1 symbol front-loaded DM-RS with 2 additional DM-RS symbols and more than 1 antenna ports. | FS | Yes | N/A | N/A |
| ***pdcch-Monitoring-r16***  Indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. The different value can be reported for PDSCH processing type 1 and PDSCH processing type 2, respectively. For each sub-carrier spacing, the leading / leftmost bit (bit 0) corresponds to the supported value set (X,Y) of (7,3). The next bit (bit 1) corresponds to the supported value set (X,Y) of (4,3). The rightmost bit (bit 2) corresponds to the supported value set (X,Y) of (2,2). | FS | No | N/A | N/A |
| ***pdcch-MonitoringAnyOccasions***  Defines the supported PDCCH search space monitoring occasions. withoutDCI-gap indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. withDCI-gap indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation of two OFDM symbols for 15 kHz, four OFDM symbols for 30 kHz, seven OFDM symbols for 60 kHz with NCP, and 14OFDM symbols for 120kHz between two consecutive transmissions of PDCCH scrambled with C-RNTI, MCS-C-RNTI, or CS-RNTI for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space, with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively. | FS | No | N/A | N/A |
| ***pdcch-MonitoringAnyOccasionsWithSpanGap***  Indicates whether the UE supports PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. Value set1 indicates the supported value set (X,Y) is (7,3), value set2 indicates the supported value set (X,Y) is (4,3) and (7,3) and value set 3 indicates the supported value set (X,Y) is (2,2), (4,3) and (7,3). | FS | No | N/A | N/A |
| ***pdcch-MonitoringMixed-r16***  Indicates support of Rel-15 monitoring capability and *pdcch-Monitoring-r16* on different serving cells. | FS | No | N/A | N/A |
| ***pdcch-MonitoringMixed-r18***  Indicates whether the UE support Rel-15 monitoring capability and *pdcch-Monitoring-r16* monitoring capability on different serving cells.  The UE supporting this feature shall also indicate support of *pdcch-Monitoring-r16* for (7,3) or (4,3) span based PDCCH monitoring.  The UE supporting this feature shall also indicate support of *pdcch-MonitoringSpan2-2-r18* for (2, 2) span based PDCCH monitoring with additional restriction(s).  When a UE reports both *pdcch-MonitoringMixed-r16* and this capability, the value reported in this capability is used if the configured span pattern of any serving cell satisfies *pdcch-MonitoringSpan2-2-r18*. | FS | No | N/A | N/A |
| ***pdcch-MonitoringSpan2-2-r18***  Indicates support of (2, 2) span-based PDCCH monitoring with the additional restriction that there is at least one OFDM symbol gap between two PDCCH monitoring occasions.  When a UE reports both *pdcch-Monitoring-r16* and this capability, the union of supported span patterns in *pdcch-Monitoring-r16* and this capability establishes the multiple combinations (X,Y) used to determine per-span BD/CCE limit as described in Clause 10 of TS 38.213 [11]. | FS | No | N/A | N/A |
| ***pdcch-RACH-DlInfoList -r18***  Indicates whether UE support PDCCH-ordered RACH transmission for the corresponding band pair with the following parameters.  -    *pDCCH-RACH-AffectedBands-r18* indicates whether UE may cause interruption on DL slot(s) on serving cells due to PDCCH-ordered RACH transmission.  -    *pdcch-RACH-SwitchingTimeList-r18* indicates the RF/BB preparation time for PDCCH ordered RACH of which the resources are not fully contained in any of UE’s configured UL BWP(s) of active serving cells.  -    *pDCCH-RACH-PrepTime-r18* indicates the interruption length (Y ms) due to RF re-tuning for PDCCH ordered RACH of which the resources are not fully contained in any of UE’s configured UL BWP(s) of active serving cells.  Each source-target pair indicates the band pair between the band under UE’s current band combination and the target band for RACH transmission.  The target bands only consist of the bands requested by the network in *appliedFreqBandListFilter*. They are listed in the same order as in *appliedFreqBandListFilter* and the first entry correspond to the first entry on *appliedFreqBandListFilter* and so on.  A UE supporting this feature shall also indicate support of *rach-EarlyTA-Measurement-r18*. | FS | No | N/A | N/A |
| ***pdsch-1PortDL-PTRS-r18***  Indicates whether the UE supports 1 port DL PTRS for enhanced DMRS ports for PDSCH with rank 1-8.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-2PortDL-PTRS-r18***  Indicates whether the UE supports 2 port DL PTRS for enhanced DMRS ports for PDSCH with rank 1-8.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-1SymbolFL-DMRS-Addition2Symbol-r18***  Indicates whether the UE supports 1 symbol FL DMRS and 2 additional DMRS symbols for more than one port for enhanced DMRS ports for PDSCH.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* and *mappingTypeA-1SymbolFL-DMRS-Addition2Symbol-r18*. | FS | No | N/A | N/A |
| ***pdsch-1SymbolFL-DMRS-Addition3Symbol-r18***  Indicates whether the UE supports 1 symbol FL DMRS and 3 additional DMRS symbols for enhanced DMRS ports for PDSCH.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-2SymbolFL-DMRS-r18***  Indicates whether the UE supports 2 symbols FL-DMRS for enhanced DMRS ports for PDSCH.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-2SymbolFL-DMRS-Addition2Symbol-r18***  Indicates whether the UE supports 2-symbol FL DMRS + one additional 2-symbols DMRS for enhanced DMRS ports for PDSCH.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-AlternativeDMRS-Coexistence-r18***  Indicates whether the UE supports alternative additional DMRS position for co-existence with LTE CRS for enhanced DMRS ports for PDSCH.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* and *rateMatchingLTE-CRS.* | FS | No | N/A | N/A |
| ***pdsch-DMRS-Type-r18***  Indicates whether the UE supports DMRS type for enhanced DMRS ports for PDSCH.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18*.  NOTE: A UE supporting one of *pdsch-TypeA-DMRS-r18* and *pdsch-TypeB-DMRS-r18* must signal this feature. | FS | No | N/A | N/A |
| ***pdsch-ProcessingType1-DifferentTB-PerSlot***  Defines whether the UE capable of processing time capability 1 supports reception of up to two, four or seven unicast PDSCHs for several transport blocks with PDSCH scrambled using C-RNTI, TC-RNTI, MCS-C-RNTI or CS-RNTI in one serving cell within the same slot per CC that are multiplexed in time domain only.  NOTE: PDSCH(s) for Msg.4 is included. | FS | No | N/A | N/A |
| ***pdsch-ProcessingType2***  Indicates whether the UE supports PDSCH processing capability 2. The UE supports it only if all serving cells are self-scheduled and if all serving cells in one band on which the network configured processingType2 use the same subcarrier spacing. This capability signalling comprises the following parameters for each sub-carrier spacing supported by the UE.  - *fallback* indicates whether the UE supports PDSCH processing capability 2 when the number of configured carriers is larger than *numberOfCarriers* for a reported value of *differentTB-PerSlot*. If *fallback* = 'sc', UE supports capability 2 processing time on lowest cell index among the configured carriers in the band where the value is reported, if *fallback* = 'cap1-only', UE supports only capability 1, in the band where the value is reported;  - *differentTB-PerSlot* indicates whether the UE supports processing type 2 for 1, 2, 4 and/or 7 unicast PDSCHs for different transport blocks per slot per CC; and if so, it indicates up to which number of CA serving cells the UE supports that number of unicast PDSCHs for different TBs. The UE shall include at least one of *numberOfCarriers* for 1, 2, 4 or 7 transport blocks per slot in this field if *pdsch-ProcessingType2* is indicated. | FS | No | N/A | FR1 only |
| ***pdsch-ProcessingType2-Limited***  Indicates whether the UE supports PDSCH processing capability 2 with scheduling limitation for SCS 30kHz. This capability signalling comprises the following parameter.  - *differentTB-PerSlot-SCS-30kHz* indicates the number of different TBs per slot.  The UE supports this limited processing capability 2 only if:  1) One carrier is configured in the band, independent of the number of carriers configured in the other bands;  2) The maximum bandwidth of PDSCH is 136 PRBs;  3) N1 based on Table 5.3-2 of TS 38.214 [12] for SCS 30 kHz. | FS | No | N/A | FR1 only |
| ***pdsch-ReceptionSchemeA-r18***  Indicates whether the UE supports reception of PDSCH without the scheduling restriction for Rel-18 eType1 DMRS ports for PDSCH with fdmSchemeA.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-ReceptionSchemeB-r18***  Indicates whether the UE supports reception of PDSCH without the scheduling restriction for Rel-18 eType1 DMRS ports for PDSCH with fdmSchemeB.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*. | FS | No | N/A | N/A |
| ***pdsch-ReceptionWithoutSchedulingRestriction-r18***  Indicates whether the UE supports reception of PDSCH without the scheduling restriction for eType1 DMRS ports.  NOTE: If this feature is not supported, UE expects that gNB shall apply at least the following scheduling restriction for PDSCH for FD-OCC 4 in eType 1 DMRS:  1) The number of consecutively scheduled PRBs for PDSCH is even  2) The number of PRBs offset of scheduled PDSCH from point A (common resource block 0) is even | FS | No | N/A | N/A |
| ***pdsch-SeparationWithGap***  Indicates whether the UE supports separation of two unicast PDSCHs with a gap, applicable to Sub-carrier spacings of 30 kHz and 60 kHz only. For any two consecutive slots n and n+1, if there are more than 1 unicast PDSCH in either slot, the minimum time separation between starting time of any two unicast PDSCHs within the duration of these slots is 4 OFDM symbols for 30kHz and 7 OFDM symbols for 60kHz. | FS | No | N/A | N/A |
| ***pdsch-TypeA-DMRS-r18***  Indicates whether the UE supports basic feature of Rel-18 enhanced DMRS ports for PDSCH for scheduling of mapping type A, including 1 symbol FL DMRS without additional symbol(s) and 1 symbol FL DMRS and 1 additional DMRS symbol. | FS | No | N/A | N/A |
| ***pdsch-TypeB-DMRS-r18***  Indicates whether the UE supports basic feature of Rel-18 enhanced DMRS ports for PDSCH for scheduling of mapping type B, including 1 symbol FL DMRS without additional symbol(s) and 1 symbol FL DMRS and 1 additional DMRS symbol. | FS | No | N/A | N/A |
| ***prs-AsSpatialRelationRS-For-SRS-r17***  Indicates whether the UE supports PRS as spatial relation RS for SRS.  A UE supporting this feature shall also indicate support of *rtt-BasedPDC-PRS-r17*. | FS | No | N/A | FR2 only |
| ***rtt-BasedPDC-CSI-RS-ForTracking-r17***  Indicates whether the UE supports RTT-based propagation delay compensation for time synchronization of the Uu interface based on CSI-RS for tracking and SRS.  A UE supporting this feature shall also indicate support of *csi-RS-ForTracking* and *supportedSRS-Resources*. | FS | No | N/A | N/A |
| ***rtt-BasedPDC-PRS-r17***  Indicates whether the UE supports RTT-based Propagation delay compensation for time synchronization of the Uu interface based on DL PRS and SRS. The capability signalling comprises the following parameters:  - *maxNumberPRS-Resource-r17* indicates the maximum number of DL PRS Resources in DL PRS Resource Set for PDC, with value n16, n32, and n64 only applicable to FR2 bands.  - *maxNumberPRS-ResourceProcessedPerSlot-r17* indicates the maximum number of DL PRS resources that UE can process in a slot.  A UE supporting this feature shall also indicate support of *supportedSRS-Resources*. | FS | No | N/A | N/A |
| ***scalingFactor***  Indicates the scaling factor to be applied to the serving cell in the max data rate calculation when *mcs-Table-r17* and *mcs-TableDCI-1-2-r17* are not configured for the serving cell 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 |
| ***scalingFactor-1024QAM-FR1-r17***  Indicates the scaling factor to be applied to the serving cell in the max data rate calculation when *mcs-Table-r17* or *mcs-TableDCI-1-2-r17* is configured for the serving cell as defined in 4.1.2 when support of 1024-QAM for PDSCH is signalled for the band. 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.  UE indicating support of this feature shall also indicate support of *pdsch-1024QAM-FR1-r17* or *pdsch-1024QAM-2MIMO-FR1-r17* to the band. | FS | No | N/A | FR1 only |
| ***scellWithoutSSB***  Defines whether the UE supports configuration of SCell that does not transmit SS/PBCH block. This is conditionally mandatory with capability signalling for intra-band CA but not supported for inter-band CA. | FS | CY | N/A | N/A |
| ***scellWithoutSSB-InterBandCA-r18***  Indicates whether the UE supports SCell without SS/PBCH block for inter-band CA.  For each band within the BC, UE indicates if it supports the SSB-less operation when this band is the reference band and other band(s) in the BC as the SSB-less band(s). | FS | No | N/A | FR1 only |
| ***searchSpaceSharingCA-DL***  Defines whether the UE supports DL PDCCH search space sharing for carrier aggregation operation. | FS | No | N/A | N/A |
| ***sfn-SchemeA-r17***  Indicates whether the UE supports SFN scheme A for PDCCH scheduling SFN Scheme A PDSCH. | FS | No | N/A | N/A |
| ***sfn-SchemeA-DynamicSwitching-r17***  Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme A by TCI state field in DCI formats 1\_1 and 1\_2. The UE supporting this feature shall indicate *sfn-SchemeA-r17* or *sfn-SchemeA-PDSCH-only-r17*. | FS | No | N/A | N/A |
| ***sfn-SchemeA-PDCCH-only-r17***  Indicates whether the UE supports SFN scheme A for PDCCH scheduling single TRP for PDSCH. | FS | No | N/A | N/A |
| ***sfn-SchemeA-PDSCH-only-r17***  Indicates whether the UE supports SFN scheme A for PDSCH scheduled by single TRP PDCCH. | FS | No | N/A | N/A |
| ***sfn-SchemeB-r17***  Indicates whether the UE supports SFN scheme B for PDCCH scheduling SFN Scheme B PDSCH. | FS | No | N/A | N/A |
| ***sfn-SchemeB-DynamicSwitching-r17***  Indicates whether the UE supports dynamic switching between single-TRP and PDSCH SFN scheme B by TCI state field in DCI formats 1\_1 and 1\_2.  The UE supporting this feature shall indicate *sfn-schemeB-r17* or *sfn-schemeB-PDSCH-only-r17.* | FS | No | N/A | N/A |
| ***sfn-SchemeB-PDSCH-only-r17***  Indicates whether the UE supports SFN scheme B for PDSCH scheduled by single TRP PDCCH. | FS | No | N/A | N/A |
| ***simulDMRS-PDSCH-r18***  Indicates whether the UE supports Rel-18 DMRS and PDSCH processing capability 2 simultaneously. Additional processing relaxation d3 independently for each SCS in unit of symbols is reported.  A UE supporting this feature shall also indicate support of *pdsch-TypeA-DMRS-r18* or *pdsch-TypeB-DMRS-r18*, and *pdsch-ProcessingType2* or *pdsch-ProcessingType2-Limited.*  NOTE: PDSCH processing Additional processing relaxation d3 follows *pdsch-ProcessingType2* for UE PDSCH processing capability #2, *pdsch-ProcessingType2-Limited*, *pdsch-ProcessingType2* up to 2/4/7 unicast PDSCHs per slot per CC for different TBs for UE processing time capability #2. | FS | No | N/A | N/A |
| ***singleDCI-SDM-scheme-r16***  Indicates whether the UE supports single DCI based spatial division multiplexing scheme. | FS | No | N/A | N/A |
| ***sps-Multicast-r17***  Indicates whether the UE supports SPS group-common PDSCH for multicast on PCell, comprised of the following functional components:  - Supports one SPS group-common PDSCH configuration for multicast;  - Supports {2, 4, 8} times semi-static slot-level repetition for SPS group-common PDSCH;  - Supports group-common PDCCH/PDSCH with CRC scrambled by G-CS-RNTI(s) for multicast;  - Supports DCI format 4\_1 with CRC scrambled with G-CS-RNTI for multicast;  - Supports ACK/NACK-based HARQ-ACK feedback for SPS release associated with G-CS-RNTI.  A UE supporting this feature shall also indicate support of *dynamicMulticastPCell-r17*.  NOTE: One G-CS-RNTI per UE is supported for multicast reception. | FS | No | N/A | N/A |
| ***supportedSRS-Resources***  Defines support of SRS resources for SRS carrier switching for a band without associated FeatureSetuplink. The capability signalling comprising indication of:  - *maxNumberAperiodicSRS-PerBWP* indicates supported maximum number of aperiodic SRS resources that can be configured for the UE per each BWP  - *maxNumberAperiodicSRS-PerBWP-PerSlot* indicates supported maximum number of aperiodic SRS resources per slot in the BWP  - *maxNumberPeriodicSRS-PerBWP* indicates supported maximum number of periodic SRS resources per BWP  - *maxNumberPeriodicSRS-PerBWP-PerSlot* indicates supported maximum number of periodic SRS resources per slot in the BWP  - *maxNumberSemiPersistentSRS-PerBWP* indicate supported maximum number of semi-persistent SRS resources that can be configured for the UE per each BWP  - *maxNumberSemiPersistentSRS-PerBWP-PerSlot* indicates supported maximum number of semi-persistent SRS resources per slot in the BWP  - *maxNumberSRS-Ports-PerResource* indicates supported maximum number of SRS antenna port per each SRS resource  If the UE indicates the support of srs-CarrierSwitch for this band and this field is absent, the UE supports one periodic, one aperiodic, no semi-persistent SRS resources per BWP per slot and one SRS antenna port per SRS resource. | FS | FD | 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*. | FS | No | N/A | N/A |
| ***timeDurationForQCL, timeDurationForQCL-v1710***  Defines minimum number of OFDM symbols required by the UE to perform PDCCH reception and applying spatial QCL information received in DCI for PDSCH processing as described in TS 38.214 [12] clause 5.1.5. The number of OFDM symbols is measured from the end of the last symbol of the PDCCH reception to the start of the first symbol of the PDSCH reception. UE shall indicate one value of the minimum number of OFDM symbols per each subcarrier spacing of 60kHz, 120kHz, 480kHz and 960kHz. | FS | Yes | N/A | FR2 only |
| ***twoFL-DMRS-TwoAdditionalDMRS-DL***  Defines whether the UE supports DM-RS pattern for DL transmission with 2 symbols front-loaded DM-RS with one additional 2 symbols DM-RS. | FS | No | N/A | N/A |
| ***type1-3-CSS***  Defines whether the UE is able to receive PDCCH in FR2 in a Type1-PDCCH common search space configured by dedicated RRC signalling, in a Type3-PDCCH common search space or a UE-specific search space if those are associated with a CORESET with a duration of 3 symbols. | FS | Yes | N/A | FR2 only |
| ***ue-SpecificUL-DL-Assignment***  Indicates whether the UE supports dynamic determination of UL and DL link direction and slot format based on Layer 1 scheduling DCI and higher layer configured parameter *TDD-UL-DL-ConfigDedicated* as specified in TS 38.213 [11].  This capability is not applicable to NCR-MT. | FS | No | N/A | N/A |

***Next Modified section***

#### 4.2.7.7 *FeatureSetUplink* parameters

| Definitions for parameters | Per | M | FDD-TDD  DIFF | FR1-FR2  DIFF |
| --- | --- | --- | --- | --- |
| ***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 |
| ***cbgPUSCH-ProcessingType2-DifferentTB-PerSlot-r16***  Defines whether the UE capable of processing time capability 2 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 |
| ***crossCarrierSchedulingProcessing-DiffSCS-r16***  Indicates the UE cross carrier scheduling processing capability for UL carrier aggregation processing up to X unicast DCI scheduling for UL per scheduled CC. X is based on pair of (scheduling CC SCS, scheduled CC SCS) where a pair of (15,120), (15,60), (30,120) kHz SCS can have X = {1,2,4} while a pair of (15,30), (30,60), (60,120) kHz SCS can have X = {2}, and X applies per slot of scheduling CC. | FS | No | N/A | N/A |
| ***dynamicSwitchSUL***  Indicates whether the UE supports supplemental uplink with dynamic switch (DCI based selection of PUSCH carrier). The UE supports this among a carrier on a band X and a band Y if it sets this capability parameter for both band X and band Y. | FS | No | N/A | N/A |
| ***extendedDC-LocationReport-r17***  Indicates whether the UE supports extended DC location reporting (based on indicated default DC location) for at least 2 UL CCs in one band. A UE that supports this feature also supports extended DC location reporting for 1 UL CC in one band. | FS | No | N/A | N/A |
| ***featureSetListPerUplinkCC***  Indicates which features the UE supports on the individual UL carriers of the feature set (and hence of a band entry that refer to the feature set) by *FeatureSetUplinkPerCC-Id*. The order of the elements in this list is not relevant, i.e., the network may configure any of the carriers in accordance with any of the *FeatureSetUplinkPerCC-Id* in this list. A fallback per CC feature set resulting from the reported feature set per UL CC is not signalled but the UE shall support it. | FS | N/A | N/A | N/A |
| ***interSubslotFreqHopping-PUCCH-r17***  Indicates whether the UE supports inter-subslot frequency hopping for PUCCH repetitions comprised of the following functional components:  - Inter-subslot frequency hopping for PUCCH repetition operation of PUCCH Formats 0, 1, 2, 3 and 4 for 7OS slot-based PUCCH configurations;  - Inter-subslot frequency hopping for PUCCH repetition operation of PUCCH Format 0 and Format 2 for 2OS slot-based PUCCH configurations.  The UE indicating support of this feature shall also indicate the support of *pucch-Repetition-F0-1-2-3-4-RRC-Config-r17*. | FS | No | N/A | N/A |
| ***intraBandFreqSeparationUL, intraBandFreqSeparationUL-v1620***  Indicates UL frequency separation class the UE supports, which indicates a maximum frequency separation between lower edge of lowest CC and upper edge of highest CC in a frequency band, for intra-band non-contiguous CA. The UE sets the same value in the FeatureSetUplink of each band entry within a band. The values mhzX corresponds to the values XMHz defined in TS 38.101-2 [3]. It is mandatory to report for UE which supports UL non-contiguous CA in FR2.  If the UE sets the field *intraBandFreqSeparationUL-v1620* it shall set *intraBandFreqSeparationUL* (without suffix) to the nearest smaller value. | FS | CY | N/A | FR2 only |
| ***intraFreqDAPS-UL-r16***  Indicates whether UE supports enhanced uplink capabilities for intra-frequency DAPS handover. The UE only includes this capability signalling if *intraFreqDAPS-r16* is included in the *FeatureSetDownlink* for the same *FeatureSet*. The capability signalling comprises of the following parameter:  - *intraFreqTwoTAGs-DAPS-r16* indicates whether the UE supports different timing advance groups in source PCell and intra-frequency target PCell. It is mandatory with capability signalling. | FS | No | N/A | N/A |
| ***maxDelayValueBeyondD-Basic-r18***  Indicates whether the UE supports maximum delay value larger than D\_basic =1 slot. Value *sl2* denotes 2 slots, value *sl3* denotes 3 slots, value *sl4* denotes 4 slots, value *sl5* denotes 5 slots, value *sl6* denotes 6 slots, value *sl10* denotes 10 slots.  A UE supporting this feature shall also indicate support of *tdcp-Report-r18*.  NOTE: 10 slots is only applicable for SCS >= 30 kHz, and 6 slots is maximum for SCS = 15 kHz | FS | No | N/A | N/A |
| ***maxNumberTDCP-PerBWP-r18***  Indicates the maximum number of *CSI-ReportConfig* with *reportQuantity* configured as "tdcp", configured with *resourcesForChannelMeasurement* linked to a same BWP ID.  A UE supporting this feature shall also indicate support of *tdcp-Report-r18*. | FS | No | N/A | N/A |
| ***maxNumberTRS-ResourceSet-r18***  Indicates the maximum number of TRS resource sets in a single CSI-RS resource setting.  A UE supporting this feature shall also indicate support of *tdcp-Report-r18*. | FS | No | N/A | N/A |
| ***mTRP-PUCCH-IntraSlot-r17***  Indicates whether the UE supports PUCCH repetition scheme 3 (intra-slot repetition) with sequential mapping for repetitions larger than 2 and cyclic mapping for 2 repetitions by indicating the supported PUCCH formats for this scheme. The UE indicating this feature shall also support up to two PUCCH power control parameter sets/spatial relation info per PUCCH resource.  Power control parameter sets feature is applicable to FR1 only (without spatial relation info) and spatial relation info is applicable to FR2 only. | FS | No | N/A | N/A |
| ***mTRP-PUSCH-TypeA-CB-r17***  Indicates the support of multi-TRP PUSCH repetition based on codebook with PUSCH repetition type A. The value indicates the supported number of SRS resources in one SRS resource set.  This feature includes the following features:  - sequential mapping for repetitions larger than 2.  - cyclic mapping for 2 repetitions.  - two SRS resource sets with usage set to 'codebook'.  The UE indicating support of this feature shall also indicate the support of *mimo-CB-PUSCH.* If the value of supported number of SRS resources is 4 then the UE shall also indicate support of *ul-FullPwrMode2-MaxSRS-ResInSet* set to n4*.* | FS | No | N/A | N/A |
| ***mTRP-PUSCH-RepetitionTypeA-r17***  Indicates whether the UE supports multi-TRP PUSCH repetition for non-codebook based PUSCH repetition type A with sequential mapping for repetitions larger than 2 and cyclic mapping for 2 repetitions by indicating the supported number of SRS resources in one SRS resource set. The UE indicating this feature shall also support two SRS resource sets with usage set to 'nonCodebook'.  The UE indicating this feature shall indicate support of *maxNumberMIMO-LayersNonCB-PUSCH* and *mimo-NonCB-PUSCH.* | FS | No | N/A | N/A |
| ***multiPUCCH-r16***  Indicates whether the UE supports more than one PUCCH for HARQ-ACK transmission within a slot. This field includes the following parameters:  - *sub-SlotConfig-NCP-r16* indicates the sub-slot configuration for NCP;  - *sub-SlotConfig-ECP-r16* indicates the sub-slot configuration for ECP.  For NCP, the value *set1* denotes 7-symbol\*2, and *set2* denotes 2-symbol\*7 and 7-symbol\*2.  For ECP, the value *set1* denotes 6-symbol\*2, and *set2* denotes 2-symbol\*6 and 6-symbol\*2. | FS | No | N/A | N/A |
| ***mux-SR-HARQ-ACK-r16***  Indicates whether the UE supports SR/HARQ-ACK multiplexing once per subslot using a PUCCH (or HARQ-ACK piggybacked on a PUSCH) when SR/HARQ-ACK are supposed to be sent with different starting symbols in a subslot. | FS | No | N/A | N/A |
| ***offsetSRS-CB-PUSCH-Ant-Switch-fr1-r16***  Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching.  UE indicating support of this shall indicate support of *supportedSRS-Resources.* | FS | No | N/A | FR1 only |
| ***offsetSRS-CB-PUSCH-PDCCH-MonitorSingleOcc-fr1-r16***  Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching for the case of PDCCH monitoring on any span of up to 3 consecutive OFDM symbols of a slot.  UE indicating support of this shall indicate support of *supportedSRS-Resources.* | FS | No | N/A | FR1 only |
| ***offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithoutGap-fr1-r16***  Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for the case of PDCCH search space monitoring occasions in any symbol of the slot for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively.  UE indicating support of this shall indicate support of *supportedSRS-Resources.* | FS | No | N/A | FR1 only |
| ***offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithGap-fr1-r16***  Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for SRS for codebook based PUSCH and antenna switching for the case of PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation of two OFDM symbols for 15 kHz, four OFDM symbols for 30 kHz, seven OFDM symbols for 60 kHz with NCP, and 14OFDM symbols for 120kHz between two consecutive transmissions of PDCCH scrambled with C-RNTI, MCS-C-RNTI, or CS-RNTI for Type 1-PDCCH common search space configured by dedicated RRC signalling, for a Type 3-PDCCH common search space, or for a UE-specific search space, with the capability of supporting at least 44, 36, 22, and 20 blind decodes in a slot for 15 kHz, 30 kHz, 60kHz, and 120 kHz subcarrier spacing values respectively.  UE indicating support of this shall indicate support of *pdcch-MonitoringAnyOccasions* with value *withDCI-Gap* and *supportedSRS-Resources.* | FS | No | N/A | FR1 only |
| ***offsetSRS-CB-PUSCH-PDCCH-MonitorAnyOccWithSpanGap-fr1-r16***  Indicates whether UE requires minimum of 19 symbols offset between aperiodic SRS triggering and transmission for the case of PDCCH search space monitoring occasions in any symbol of the slot with minimum time separation between two consecutive transmissions of PDCCH with span up to two OFDM symbols for two OFDM symbols or span up to three OFDM symbols for four and seven OFDM symbols. Value set1 indicates the supported value set (X,Y) is (7,3), value set2 indicates the supported value set (X,Y) is (4,3) and (7,3) and value set 3 indicates the supported value set (X,Y) is (2,2), (4,3) and (7,3).  UE indicating support of this shall indicate support of *supportedSRS-Resources*. | FS | No | N/A | FR1 only |
| ***pa-PhaseDiscontinuityImpacts***  Indicates incapability motivated by impacts of PA phase discontinuity with overlapping transmissions with non-aligned starting or ending times or hop boundaries across carriers for intra-band (NG)EN-DC/NE-DC, intra-band CA and FDM based ULSUP.  This capability applies to:  - Intra-band (NG)EN-DC/NE-DC combination without additional inter-band NR and LTE CA component;  - Intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component;  - Inter-band (NG)EN-DC/NE-DC combination, where the frequency range of the E-UTRA band is a subset of the frequency range of the NR band (as specified in Table 5.5B.4.1-1 of TS 38.101-3 [4]).  If this capability is included in an "Intra-band (NG)EN-DC/NE-DC combination supporting both UL and DL intra-band (NG)EN-DC/NE-DC parts with additional inter-band NR/LTE CA component", this capability applies to the intra-band (NG)EN-DC/NE-DC BC part. | FS | No | N/A | N/A |
| ***partialCancellationPUCCH-PUSCH-PRACH-TX-r16***  Indicates whether UE supports the partial cancellation of the configured PUCCH or PUSCH or PRACH transmission in set of symbols of a slot due to:  - Detection of a DCI format 2\_0 with a slot format value other than 255 that indicates a slot format with a subset of symbols from the set of symbols as downlink or flexible;  - DCI format 2\_0 being configured but not detected, when either a subset of symbols from the set of symbols are indicated as flexible by *tdd-UL-DL-ConfigurationCommon*, and *tdd-UL-DL-ConfigurationDedicated* if provided, or *tdd-UL-DL-ConfigurationCommon* and *tdd-UL-DL-ConfigurationDedicated* are not provided to the UE;  - Detection of a DCI format 1\_0, DCI format 1\_1, DCI format 1\_2 or DCI format 0\_1 and DCI format 0\_2 indicating to the UE to receive CSI-RS or PDSCH in a subset of symbols from the set of symbols. | FS | No | N/A | N/A |
| ***phaseReportMoreThanOne-r18***  Indicates whether the UE supports phase report for Y>=1.  A UE supporting this feature shall also indicate support of *tdcp-Report-r18*. | FS | No | N/A | N/A |
| ***phy-PrioritizationHighPriorityDG-LowPriorityCG-r17***  Indicates whether the UE supports PHY prioritization of overlapping high-priority DG-PUSCH and low-priority CG-PUSCH comprised of the following functional components:  - PHY prioritization of overlapping high-priority dynamic grant PUSCH and low-priority configured grant PUSCH on a BWP of a serving cell;  - Configuration of PHY priority level for CG PUSCH, and dynamic indication of priority level for dynamic PUSCH with a single DCI format.  The capability signalling comprises the following parameters:  - *pusch-PreparationLowPriority-r17* indicates additional number of symbols (d1) needed beyond the PUSCH preparation time for cancelling a low priority UL transmission;  - *additionalCancellationTime-r17* indicates additional number of symbols (d3) needed on top of Rel-16 cancellation time (which results N2+d1+d3 in total cancellation time);  - *maxNumberCarriers-r17* indicates maximum number of supported carriers on the band across a set of contiguous carriers for the reported FS of that band.  The value sym0 denotes 0 symbol, sym1 denotes one symbol, and so on. | FS | No | N/A | N/A |
| ***phy-PrioritizationLowPriorityDG-HighPriorityCG-r17***  Indicates whether the UE supports PHY prioritization of overlapping low-priority DG-PUSCH and high-priority CG-PUSCH comprised of the following functional components:  - PHY prioritization for the case where low-priority DG-PUSCH collides with high-priority CG-PUSCH;  - Configuration of PHY priority level for CG PUSCH, and dynamic indication of priority level for dynamic PUSCH with a single DCI format.  The value indicates maximum number of supported carriers on the band across a set of contiguous carriers for the reported FS of that band. | FS | No | N/A | N/A |
| ***posSRS-BWA-AffectedBandList-r18***  Indicates which other bands in the band combination are affected due to the need of a guard period.  UE indicating support of this shall indicate support one of *posSRS-BWA-IndependentCA-RRC-Connected-r18* and *posSRS-BWA-RRC-Inactive-r18*.  NOTE: Guard period is needed before and after the aggregated SRS transmissions when SRS resource is configured within a CC without PUSCH/PUCCH is linked for aggregation with an SRS resource configured within an UL active BWP of a UL communication CC. | FS | No | N/A | N/A |
| ***posSRS-BWA-IndependentCA-RRC-Connected-r18***  Indicates whether the UE supports positioning SRS bandwidth aggregation independent from UL communication CA in RRC\_CONNECTED and 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.  - *maximumAggregatedResourceAperiodic-r18* indicates the maximum number of aggregated aperiodic 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.  - *maximumAggregatedResourceAperiodicPerSlot-r18* indicates the maximum number of aggregated aperiodic 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.  - *supportOfSameSRS-PowerReduction-r18* indicates the support of the same SRS power reduction across aggregated carriers, which is supported and reported by UE.  - *guardPeriod-r18* indicates the guard period before and after aggregated SRS transmission.  UE indicating support of this feature shall indicate the support of *SRS-AllPosResources-r16*.  NOTE 1: The UE supports the simultaneous transmission in a coherent manner of 2 or 3 SRS resources in 2 or 3 intra-band contiguous CCs.  NOTE 2: Each two or three linked SRS resources are counted as 1 resource  NOTE 3: UE only reports the number on bands for the current configured CA band combination.  NOTE 4: Guard period is needed before and after the aggregated SRS transmissions when SRS resource is configured within a CC without PUSCH/PUCCH is linked for aggregation with an SRS resource configured within an UL active BWP of a UL communication CC.  NOTE 5: For a given band, independent of the band combination, the UE must signal the same guard period. | FS | No | N/A | N/A |
| ***posSRS-BWA-RRC-Connected-r18***  Indicates whether the UE supports positioning SRS bandwidth aggregation in RRC\_CONNECTED and 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-TwoCarriers-FR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR1, which is supported and reported by UE.  - *maximumAggregatedBW-TwoCarriers-FR2-r18* indicates the maximum aggregated SRS bandwidth in MHz for two aggregated carriers for FR2, which is supported and reported by UE.  - *maximumAggregatedBW-ThreeCarriers-FR1-r18* indicates the maximum aggregated SRS bandwidth in MHz for three aggregated carriers for FR1, which is supported and reported by UE.  - *maximumAggregatedBW-ThreeCarriers-FR2-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.  - *maximumAggregatedResourceAperiodic-r18* indicates the maximum number of aggregated aperiodic 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.  - *maximumAggregatedResourceAperiodicPerSlot-r18* indicates the maximum number of aggregated aperiodic 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.  - *supportOfSameSRS-PowerReduction-r18* indicates the support of the same SRS power reduction across aggregated carriers, which is supported and reported by UE.  UE indicating support of this feature shall indicate the support of *SRS-AllPosResources-r16* and *supportedBandCombinationList.*  NOTE 1: The UE supports the simultaneous transmission in a coherent manner of 2 or 3 SRS resources in 2 or 3 intra-band contiguous CCs.  NOTE 2: Each two or three linked SRS resources are counted as 1 resource  NOTE 3: A UE that supports *SRS-PosResourceAP-r16* must signal a non-zero value for *maximumAggregatedResourceAperiodic-r18* and *maximumAggregatedResourceAperiodicPerSlot-r18*;  NOTE 4: UE only reports the number on bands for the current configured CA band combination. | FS | No | N/A | N/A |
| ***powerBoosting-pi2BPSK-QPSK-r18***  Indicates whether the UE supports power boosting for DFT-s-OFDM pi/2 BPSK and QPSK without modified spectrum flatness requirement for PC3 and PC2 MPR reduction, when applicable as defined in 6.2 of TS 38.101-1 [2].The power boosting is only enabled when signalled via *powerBoostPi2BPSK-r18* for BPSK and *powerBoostQPSK-r18* for QPSK.  A UE supporting this feature shall also indicate the support of *pusch-HalfPi-BPSK* and *pucch-F3-4-HalfPi-BPSK.*  *Editor Note: FFS on applicable scenarios.* | FS | No | N/A | FR1 only |
| ***powerBoosting-pi2BPSK-QPSK-Modified-r18***  Indicates whether the UE supports power boosting for DFT-s-OFDM pi/2 BPSK and QPSK with modified spectrum flatness requirement for PC3 and PC2 MPR reduction, when applicable as defined in 6.2 of TS 38.101-1 [2]. The power boosting is only enabled when signalled via *powerBoostPi2BPSK-r18* for BPSK and *powerBoostQPSK-r18* for QPSK.  A UE supporting this feature shall also indicate the support of *pusch-HalfPi-BPSK* and *pucch-F3-4-HalfPi-BPSK.*  *Editor Note: FFS on applicable scenarios.* | FS | No | N/A | FR1 only |
| ***pucch-Repetition-F0-1-2-3-4-DynamicIndication-r17***  Indicates whether the UE supports repetitions for PUCCH format 0, 1, 2, 3 and 4 over multiple PUCCH subslots based on dynamic repetition indication*.*  The UE indicating support of this feature shall also indicate the support of *pucch-Repetition-F0-1-2-3-4-RRC-Config-r17.*  NOTE: Dynamic PUCCH repetition factor indication is only supported for HARQ-ACK. | FS | No | N/A | N/A |
| ***pucch-Repetition-F0-1-2-3-4-RRC-Config-r17***  Indicates whether the UE supports repetitions for PUCCH format 0, 1, 2, 3 and 4 over multiple PUCCH subslots with RRC configured repetition factor K = 2, 4, 8.  A UE supporting this feature shall also indicate support of *pucch-Repetition-F1-3-4* and *multiPUCCH-r16.*  NOTE: The support of this feature doesn't imply an increase of the maximum number of PUCCHs per slot that supported by the UE. | FS | No | N/A | N/A |
| ***pucch-SingleDCI-STx2P-SFN-r18***  Indicates whether the UE supports single-DCI based STx2P SFN scheme for PUCCH and the supported PUCCH formats for STx2P SFN scheme. | FS | No | N/A | FR2 only |
| ***pusch-ProcessingType1-DifferentTB-PerSlot***  Indicates whether the UE capable of processing time capability 1 supports transmission of up to two, four or seven unicast PUSCHs for several transport blocks in one serving cell within the same slot per CC that are multiplexed in time domain only. | FS | No | N/A | N/A |
| ***pusch-ProcessingType2***  Indicates whether the UE supports PUSCH processing capability 2. The UE supports it only if all serving cells are self-scheduled and if all serving cells in one band on which the network configured processingType2 use the same subcarrier spacing. This capability signalling comprises the following parameters for each sub-carrier spacing supported by the UE.  - *fallback* indicates whether the UE supports PUSCH processing capability 2 when the number of configured carriers is larger than *numberOfCarriers* for a reported value of *differentTB-PerSlot*. If *fallback* = 'sc', UE supports capability 2 processing time on lowest cell index among the configured carriers in the band where the value is reported, if *fallback* = 'cap1-only', UE supports only capability 1, in the band where the value is reported;  - *differentTB-PerSlot* indicates whether the UE supports processing type 2 for 1, 2, 4 and/or 7 unicast PUSCHs for different transport blocks per slot per CC; and if so, it indicates up to which number of CA serving cells the UE supports that number of unicast PUSCHs for different TBs. The UE shall include at least one of *numberOfCarriers* for 1, 2, 4 or 7 transport blocks per slot in this field if *pusch-ProcessingType2* is indicated. | FS | No | N/A | FR1 only |
| ***pusch-RepetitionTypeB-r16, pusch-RepetitionTypeB-v16d0***  Indicates whether the UE supports PUSCH repetition type B, as specified in 6.1.2 of TS 38.214 [12].  The *maxNumberPUSCH-Tx-r16* in *pusch-RepetitionTypeB-r16* indicates the supported maximum number of PUSCH transmissions within a slot for all TB(s) for processing capability 1 if *pusch-ProcessingType2* is not included, or for both processing capability 1 and processing capability 2 if *pusch-ProcessingType2* is included. The *maxNumberPUSCH-Tx-Cap1-r16* and *maxNumberPUSCH-Tx-Cap2-r16* in *pusch-RepetitionTypeB-v16d0* are for processing capability 1 and processing capability 2 separately, which are only included when different values are supported for the processing capabilities. The *maxNumberPUSCH-Tx-r16* will be ignored by the network if the *pusch-RepetitionTypeB-v16d0* is included. | FS | No | N/A | N/A |
| ***pusch-SeparationWithGap***  Indicates whether the UE supports separation of two unicast PUSCHs with a gap, applicable to Sub-carrier spacings of 15 kHz, 30 kHz and 60 kHz only. For any two consecutive slots n and n+1, if there are more than 1 unicast PUSCH in either slot, the minimum time separation between starting time of any two unicast PUSCHs within the duration of these slots is 2 OFDM symbols for 15kHz, 4 OFDM symbols for 30kHz and 7 OFDM symbols for 60kHz. | FS | No | N/A | N/A |
| ***pusch-DMRS8Tx-r18***  Indicates whether the UE supports DMRS port configuration for PUSCH with 8Tx for Rel-15 and Rel-18. Value rel15 indicates the UE supports Rel-15 DMRS. Value both indicates the UE supports Rel-15 DMRS and Rel-18 DMRS.  NOTE: A UE supporting 8 Tx must support this feature. |  |  |  |  |
| ***pusch-DMRS-TypeEnh-r18***  Indicates the DMRS type for Rel-18 enhanced DMRS ports for PUSCH. This capability signalling comprises the following parameters:  - *dmrs-Type-r18* indicates the DMRS type for Rel-18 enhanced DMRS ports for PUSCH. Value *etype1* indicates the UE supports eType1 DMRS type. Value *both* indicates the UE supports both eType1 and eType2 DMRS type.  - *pusch-TypeA-DMRS-r18* comprises of the following parameters:  - *dmrs-TypeA-r18* indicates whether the UE supports enhanced DMRS ports for PUSCH for scheduling mapping of type A for enhanced DMRS ports, including support of 1 symbol FL DMRS without additional symbol(s), support of 1 symbol FL DMRS and 1 additional DMRS symbols and support of 1 symbol FL DMRS and 2 additional DMRS symbols for one port.  - *pusch-2SymbolFL-DMRS-r18*indicates whether the UE supports 2 symbols FL-DMRS for enhanced DMRS ports for PUSCH.  - *pusch-2SymbolFL-DMRS-Addition2Symbol-r18* indicates whether the UE supports 2-symbol FL DMRS + one additional 2-symbols DMRS for enhanced DMRS ports for PUSCH.  - *pusch-1SymbolFL-DMRS-Addition3Symbol-r18* indicates whether the UE supports 1 symbol FL DMRS and 3 additional DMRS symbols for enhanced DMRS ports for PUSCH.  - *pusch-1SymbolFL-DMRS-BeyondOnePort-r18* indicates whether the UE supports 1 symbol FL DMRS and 2 additional DMRS symbols for more than one port for enhanced DMRS ports for PUSCH.  - *pusch-TypeB-DMRS-r18* indicates whether the UE supports basic feature of Rel-18 enhanced DMRS ports for PUSCH for scheduling mapping of type B for Rel-18 enhanced DMRS ports, including support of 1 symbol FL DMRS without additional symbol(s) and support of 1 symbol FL DMRS and 1 additional DMRS symbol.  - *pusch-rank-1-4-1Port-r18* indicates whether the UE supports 1 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 1-4. A UE supporting this feature shall indicate at least one of *pusch-TypeA-DMRS-r18* and *pusch-TypeB-DMRS-r18.*  - pusch-rank-5-8-1Port-r18 indicates whether the UE supports 1 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 5-8. A UE supporting this feature shall indicate at least one of *pusch-TypeA-DMRS-r18* and *pusch-TypeB-DMRS-r18*.  - *pusch-rank-1-4-2Port-r18* indicates whether the UE supports 2 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 1-4. A UE supporting this feature shall indicate at least one of *pusch-TypeA-DMRS-r18* and *pusch-TypeB-DMRS-r18*.  - *pusch-rank-5-8-2Port-r18* indicates whether the UE supports 2 port UL PTRS for Rel-18 enhanced DMRS ports for PUSCH with rank 5-8. A UE supporting this feature shall indicate at least one of *pusch-TypeA-DMRS-r18* and *pusch-TypeB-DMRS-r18*. | FS | CY | N/A | N/A |
| ***rach-EarlyTA-BandList-r18***  Indicates whether the UE supports simultaneous transmission 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 *rach-EarlyTA-Measurement-r18*.  Each source-target pair indicates the band pair between the band under UE’s current band combination and the target band for RACH transmission.  The target bands only consist of the bands requested by the network in *appliedFreqBandListFilter*. They are listed in the same order as in *appliedFreqBandListFilter* and the first entry correspond to the first entry on *appliedFreqBandListFilter* and so on. | FS | No | N/A | N/A |
| ***searchSpaceSharingCA-UL***  Defines whether the UE supports UL PDCCH search space sharing for carrier aggregation operation. | FS | No | N/A | N/A |
| ***semiStaticHARQ-ACK-CodebookSub-SlotPUCCH-r17***  Indicates whether the UE supports Semi-static (Type 1) HARQ-ACK codebook for sub-slot based PUCCH configuration*.*  A UE supporting this feature shall also indicate support of *semiStaticHARQ-ACK-Codebook* and *multiPUCCH-r16*. | FS | No | N/A | N/A |
| ***simultaneous-2-1-HARQ-ACK-CB-r18***  Indicates whether the UE supports two HARQ-ACK codebooks with different priorities to be simultaneously constructed with the restriction up to one sub-slot based HARQ-ACK codebook. The UE also supports separate PUCCH configuration for different HARQ-ACK codebooks, 2-level priority of HARQ-ACK for dynamically scheduled PDSCH and SPS PDSCH, a DCI format 1\_3 scheduling PDSCH with different HARQ-ACK priorities when only DCI format 0\_3/1\_3 is configured per BWP and separate configuration of parameters *PDSCH-HARQ-ACK-Codebook*, *UCI-OnPUSCH* and *codeBlockGroupTransmission* for different HARQ-ACK codebooks.  The UE also supports intra-UE multiplexing/prioritization of UL overlapping channels/signals with two priority levels for HARQ-ACK.  The supported maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is indicated by *sub-SlotConfig-NCP-r18* for NCP for 2-symbol\*7 sub-slot configuration, and *sub-SlotConfig-ECP-r18* for ECP for 2-symbol\*6 sub-slot configuration.  If a UE reports both *multiPUCCH-r16* and this capability, it can support two slot-based HARQ-ACK codebooks, and one slot-based and one-sub-slot-based HARQ-ACK codebooks. If a UE reports this feature but not *multiPUCCH-r16*, it can only support two slot-based HARQ-ACK codebooks.  The number of PUCCHs for CSI reporting per slot is not impacted compared with Rel-15 by introducing the new HARQ-ACK CBs.  *simultaneous-2-1-HARQ-ACK-CB-r18* is applied to the sub-slot HARQ-ACK codebook. It is assumed that only 1 actual PUCCH transmission for HARQ-ACK within a slot for slot-based HARQ-ACK codebook. It is indicated for 2-symbol\*7 sub-slot configuration. For 7-symbol\*2 sub-slot configuration, the value of *simultaneous-2-1-HARQ-ACK-CB-r18* is {2} for both NCP and ECP cases.  The value indicated in *simultaneous-2-1-HARQ-ACK-CB-r18* has no meaning for "slot-based + slot based".  A UE supporting this feature shall also indicate support at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18* and *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*. | FS | No | N/A | N/A |
| ***simultaneous-2-2-HARQ-ACK-CB-r18***  Indicates whether the UE supports two subslot based HARQ-ACK codebooks with different priorities to be simultaneously constructed. The UE also supports separate PUCCH configuration for different HARQ-ACK codebooks, 2-level priority of HARQ-ACK for dynamically scheduled PDSCH and SPS PDSCH, a DCI format 1\_3 scheduling PDSCH with different HARQ-ACK priorities when only DCI format 0\_3/1\_3 is configured in USS per BWP, separate configuration of parameters *PDSCH-HARQ-ACK-Codebook*, *UCI-OnPUSCH* and *codeBlockGroupTransmission* for different HARQ-ACK codebooks.  The supported maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is indicated by *sub-SlotConfig-NCP-r18* for NCP for 2-symbol\*7 sub-slot configuration, and *sub-SlotConfig-ECP-r18* for ECP for 2-symbol\*6 sub-slot configuration.  The number of PUCCHs for CSI reporting per slot is not impacted compared with Rel-15 by introducing the new HARQ-ACK CBs.  *simultaneous-2-2-HARQ-ACK-CB-r18* is applied to the two sub-slot HARQ-ACK codebooks, respectively.  *simultaneous-2-2-HARQ-ACK-CB-r18* is reported for 2-symbol\*7 sub-slot configuration. For 7-symbol\*2 sub-slot configuration, the value of *simultaneous-2-2-HARQ-ACK-CB-r18* is {2} for both NCP and ECP cases.  A UE supporting this feature shall also indicate support of *multiPUCCH-r16* and *simultaneous-2-1-HARQ-ACK-CB-r18*. | FS | No | N/A | N/A |
| ***simultaneousTxSUL-NonSUL***  Indicates whether the UE supports simultaneous transmission of SRS on an SUL/non-SUL carrier and PUSCH/PUCCH/SRS on the other UL carrier in the same cell. The UE supports simultaneous transmission on an SUL band X and a Non-SUL band Y if it sets this capability parameter for both band X and band Y. | FS | No | N/A | N/A |
| ***srs-AntennaSwitching2SP-1Periodic-r17***  Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for antenna switching.  The UE indicating support of this shall indicate support of *supportedSRS-Resources.*  NOTE:  - Applies for all supported xTyR where y<=8  - For xTyR where y>4, if UE does not support this feature, UE supports maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS  - For xTyR where y<=4, if UE does not support this feature, UE follows Rel-15 on the number of resource sets for periodic and semi-persistent SRS  The two SP-SRS resource sets are not activated at the same time. | FS | No | N/A | N/A |
| ***srs-AntennaSwitching8T8R2SP-1Periodic-r18***  Indicates whether the UE supports maximum 2 SP SRS resource sets and maximum 1 periodic SRS resource set for 8T8R antenna switching.  A UE supporting this feature shall also indicate support of *srs-AntennaSwitching8T8R-r18*.  NOTE 1: If UE does NOT support this feature, support maximum one SRS resource set for periodic SRS and maximum one SRS resource set for semi-persistent SRS  NOTE 2: The two SP-SRS resource sets are not activated at the same time. | FS | No | N/A | N/A |
| ***srs-ExtensionAperiodicSRS-r17***  Indicates whether the UE supports 4 aperiodic SRS resource sets for 1T4R and 2 aperiodic resource sets for 1T2R/2T4R.  The UE indicating support of this shall indicate support of *srs-TxSwitch* and *supportedSRS-Resources.* | FS | No | N/A | N/A |
| ***srs-OneAP-SRS-r17***  Indicates the support of 1 aperiodic SRS resource sets for 1T4R.  The UE indicating support of this feature shall also indicate the support of *srs-StartAnyOFDM-Symbol-r16* and *srs-TxSwitch.* | FS | No | N/A | N/A |
| ***srs-PosResources-r16***  Indicates support of SRS for positioning. UE supporting this feature should also support open loop power control for positioning SRS based on SSB from the serving cell. The capability signalling comprises the following parameters:  - *maxNumberSRS-PosResourceSetPerBWP-r16* Indicates the max number of SRS Resource Sets for positioning supported by UE per BWP*;*  - *maxNumberSRS-PosResourcesPerBWP-r16* indicates the max number of SRS resources for positioning supported by UE per BWP, including periodic, semi-persistent, and aperiodic SRS;  - *maxNumberSRS-ResourcesPerBWP-PerSlot-r16* indicates the max number of SRS resources configured by *SRS-Resource* and *SRS-PosResource-r16* supported by UE per BWP, including periodic, semi-persistent, and aperiodic SRS;  - *maxNumberPeriodicSRS-PosResourcesPerBWP-r16* indicates the max number of periodic SRS resources for positioning supported by UE per BWP;  - *maxNumberPeriodicSRS-PosResourcesPerBWP-PerSlot-r16* indicates the max number of periodic SRS resources for positioning supported by UE per BWP per slot. | FS | No | N/A | N/A |
| ***srs-PosResourceAP-r16***  Indicates support of aperiodic SRS for positioning. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. The capability signalling comprises the following parameters:  - *maxNumberAP-SRS-PosResourcesPerBWP-r16* indicates the max number of aperiodic SRS resources for positioning supported by UE per BWP;  - *maxNumberAP-SRS-PosResourcesPerBWP-PerSlot-r16* indicates the max number of aperiodic SRS resources for positioning supported by UE per BWP per slot. | FS | No | N/A | N/A |
| ***srs-PosResourceSP-r16***  Indicates support of semi-persistent SRS for positioning. The UE can include this field only if the UE supports *srs-PosResources-r16*. Otherwise, the UE does not include this field. The capability signalling comprises the following parameters:  - *maxNumberSP-SRS-PosResourcesPerBWP-r16* indicates the max number of semi-persistent SRS resources for positioning supported by UE per BWP;  - *maxNumberSP-SRS-PosResourcesPerBWP-PerSlot-r16* indicates the max number of semi-persistent SRS resources for positioning supported by UE per BWP per slot | FS | No | N/A | N/A |
| ***supportedSRS-Resources***  Defines support of SRS resources. The capability signalling comprising indication of:  - *maxNumberAperiodicSRS-PerBWP* indicates supported maximum number of aperiodic SRS resources that can be configured for the UE per each BWP  - *maxNumberAperiodicSRS-PerBWP-PerSlot* indicates supported maximum number of aperiodic SRS resources per slot in the BWP  - *maxNumberPeriodicSRS-PerBWP* indicates supported maximum number of periodic SRS resources per BWP  - *maxNumberPeriodicSRS-PerBWP-PerSlot* indicates supported maximum number of periodic SRS resources per slot in the BWP  - *maxNumberSemiPersistentSRS-PerBWP* indicate supported maximum number of semi-persistent SRS resources that can be configured for the UE per each BWP  - *maxNumberSemiPersistentSRS-PerBWP-PerSlot* indicates supported maximum number of semi-persistent SRS resources per slot in the BWP  - *maxNumberSRS-Ports-PerResource* indicates supported maximum number of SRS antenna port per each SRS resource.  If this field is not included, the UE supports one periodic, one aperiodic, no semi-persistent SRS resources per BWP and one periodic, one aperiodic, no semi-persistent SRS resources per BWP per slot and one SRS antenna port per SRS resource. | FS | FD | N/A | N/A |
| ***tdcp-NumberDelayValue-r18***  Indicates whether the UE supports number Y>1 of delay values for which TDCP is reported.  A UE supporting this feature shall also indicate support of *tdcp-Report-r18*. | FS | No | N/A | N/A |
| ***twoHARQ-ACK-Codebook-type1-r16***  Indicates whether the UE supports two HARQ-ACK codebooks with up to one subslot based HARQ-ACK codebook (i.e. slot-based + slot-based, or slot-based + subslot based) simultaneously constructed for supporting HARQ-ACK codebooks with different priorities at a UE. The capability signalling comprises the following parameters:  - *sub-SlotConfig-NCP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for NCP with 2-symbol\*7 sub-slot configuration;  - *sub-SlotConfig-ECP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for ECP with 2-symbol\*6 sub-slot configuration;  For the 7-symbol\*2 sub-slot configuration of NCP or the 6-symbol\*2 sub-slot configuration of ECP, the value of the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is {2}.  NOTE 1: If the UE indicates support of this feature and is simultaneously configured with two slot-based HARQ-ACK codebooks:  - whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same slot for each HARQ-ACK codebook is subject to the capability reported by *twoPUCCH-F0-2-ConsecSymbols*.  - whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same slot for each HARQ-ACK codebook is subject to the capability reported by *onePUCCH-LongAndShortFormat*.  - whether the UE supports two PUCCH transmissions in the same slot for each HARQ-ACK codebook not covered by *twoPUCCH-F0-2-ConsecSymbols* and *onePUCCH-LongAndShortFormat* is subject to the capability reported by *twoPUCCH-AnyOthersInSlot*.  NOTE 2: If a UE reports both *multiPUCCH-r16* and *twoHARQ-ACK-Codebook-type1-r16*, it can support two slot-based HARQ-ACK codebooks, and one slot-based and one-sub-slot-based HARQ-ACK codebooks. If a UE reports *twoHARQ-ACK-Codebook-type1-r16* but does not report *multiPUCCH-r16*, it can only support two slot-based HARQ-ACK codebooks. | FS | No | N/A | N/A |
| ***twoHARQ-ACK-Codebook-type2-r16***  Indicates whether the UE supports two subslot based HARQ-ACK codebooks simultaneously constructed for supporting HARQ-ACK codebooks with different priorities at a UE. The capability signalling comprises the following parameters:  - *sub-SlotConfig-NCP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for NCP with 2-symbol\*7 sub-slot configuration;  - *sub-SlotConfig-ECP-r16* indicates the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot for ECP with 2-symbol\*6 sub-slot configuration;  For the 7-symbol\*2 sub-slot configuration of NCP or the 6-symbol\*2 sub-slot configuration of ECP, the value of the maximum number of actual PUCCH transmissions for HARQ-ACK within a slot is {2}. | FS | No | N/A | N/A |
| ***twoPUCCH-Group***  Indicates whether two PUCCH group in CA with a same numerology across CCs for data and control channel [at a given time] is supported by the UE. For NR CA, two PUCCH group is supported with the same numerology across NR carriers for data and control channel at a given time. For (NG)EN-DC/NE-DC, two PUCCH group is supported with the same numerology across NR carriers for data and control channel at a given time, wherein an NR PUCCH group is configured in FR1 and another NR PUCCH group is configured in FR2. The UE supports two PUCCH groups with PUCCH on a band X and a band Y if it sets this capability parameter for both band X and band Y. | FS | No | N/A | N/A |
| ***twoPUCCH-Type1-r16***  Indicates whether the UE supports two PUCCH of format 0 or 2 in the same subslot for a single 7\*2-symbol subslot based HARQ-ACK codebook. | FS | No | N/A | N/A |
| ***twoPUCCH-Type2-r16***  Indicates whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same subslot for a single 2\*7-symbol subslot based HARQ-ACK codebook. | FS | No | N/A | N/A |
| ***twoPUCCH-Type3-r16***  Indicates whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same subslot for a single 2\*7-symbol HARQ-ACK codebook. | FS | No | N/A | N/A |
| ***twoPUCCH-Type4-r16***  Indicates whether the UE supports two PUCCH transmissions in the same subslot for a single 2\*7-symbol HARQ-ACK codebook which are not covered by *twoPUCCH-Type2-r16* and *twoPUCCH-Type3-r16*. | FS | No | N/A | N/A |
| ***twoPUCCH-Type5-r16***  Indicates whether the UE supports two PUCCH of format 0 or 2 for two HARQ-ACK codebooks with one 7\*2-symbol subslot based HARQ-ACK codebook and one slot based HARQ-ACK codebook. | FS | No | N/A | N/A |
| ***twoPUCCH-Type6-r16***  Indicates whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same subslot for two HARQ-ACK codebooks with one 2\*7-symbol subslot based HARQ-ACK codebook and one slot based HARQ-ACK codebook. | FS | No | N/A | N/A |
| ***twoPUCCH-Type7-r16***  Indicates whether the UE supports two PUCCH of format 0 or 2 in consecutive symbols in the same subslot for two subslot based HARQ-ACK codebooks. | FS | No | N/A | N/A |
| ***twoPUCCH-Type8-r16***  Indicates whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same subslot for two HARQ-ACK codebooks with one 2\*7-symbol subslot based HARQ-ACK codebook and one slot based HARQ-ACK codebook. | FS | No | N/A | N/A |
| ***twoPUCCH-Type9-r16***  Indicates whether the UE supports one PUCCH format 0 or 2 and one PUCCH format 1, 3 or 4 in the same subslot for two subslot based HARQ-ACK codebooks. | FS | No | N/A | N/A |
| ***twoPUCCH-Type10-r16***  Indicates whether the UE supports two PUCCH transmissions in the same subslot for two HARQ-ACK codebooks with one 2\*7-symbol subslot and one slot based HARQ-ACK codebook which are not covered by *twoPUCCH-Type6-r16* and *twoPUCCH-Type8-r16*. | FS | No | N/A | N/A |
| ***twoPUCCH-Type11-r16***  Indicates whether the UE supports two PUCCH transmissions in the same subslot for two subslot based HARQ-ACK codebooks which are not covered by *twoPUCCH-Type7-r16* and *twoPUCCH-Type9-r16*. | FS | No | N/A | N/A |
| ***txDiversity2Tx-r18***  Indicates whether the UE supports 2Tx Tx diversity for the band configured.  This capability is applicable for both single band (non-CA) case and CA case. | FS | No | N/A | FR1 only |
| ***txDiversity4Tx-r18***  Indicates whether the UE supports 4Tx Tx diversity for the band configured.  This capability is applicable for both single band (non-CA) case and CA case. | FS | No | N/A | FR1 only |
| ***tx-Support-UL-GapFR2-r17***  Indicates whether the UE supports UL transmission in FR2 bands within an FR2 UL gap when the FR2 UL gap is activated in inter-band UL CA. The UE which indicates support for *tx-Support-UL-GapFR2-r17*shall also indicate support for *ul-GapFR2-r17* in an FR2 band. | FS | No | No | FR2 only |
| ***ue-PowerClassPerBandPerBC-r17, ue-PowerClassPerBandPerBC-v18xy***  Indicates the UE power class per band per band combination.  NOTE: Void. | FS | No | N/A | FR1 only |
| ***ul-CancellationCrossCarrier-r16***  Indicates whether the UE supports UL cancellation scheme for cross-carrier comprised of the following functional components:  - Supports group common DCI (i.e. DCI format 2\_4) for cancellation indication on a different DL CC than that scheduling PUSCH or SRS;  - UL cancellation for PUSCH. Cancellation is applied to each PUSCH repetition individually in case of PUSCH repetitions;  - UL cancellation for SRS symbols that overlap with the cancelled symbols. | FS | No | N/A | N/A |
| ***ul-CancellationSelfCarrier-r16***  Indicates whether the UE supports UL cancellation scheme for self-carrier comprised of the following functional components:  - Supports group common DCI (i.e. DCI format 2\_4) for cancellation indication on the same DL CC as that scheduling PUSCH or SRS;  - UL cancellation for PUSCH. Cancellation is applied to each PUSCH repetition individually in case of PUSCH repetitions;  - UL cancellation for SRS symbols that overlap with the cancelled symbols. | FS | No | N/A | N/A |
| ***ul-DMRS-SingleDCI-M-TRP-r18***  Indicates whether the UE supports UL DMRS with Single-DCI based M-TRP. | FS | No | N/A | N/A |
| ***ul-DMRS-M-DCI-M-TRP-r18***  Indicates whether the UE supports UL DMRS with M-DCI based M-TRP. | FS | No | N/A | N/A |
| ***ul-FullPwrMode-r16***  Indicates the UE support of UL full power transmission mode of *fullpower* as specified in clause 7.1 of TS 38.213 [11]. If the UE indicates this capability the UE also indicates the support of codebook based PUSCH MIMO transmission using *mimo-CB-PUSCH* and the support of PUSCH codebook coherency subset using *pusch-TransCoherence.* | FS | No | N/A | N/A |
| ***ul-FullPwrMode1-r16***  Indicates the UE support of UL full power transmission mode of *fullpowerMode1*. If the UE indicates this capability the UE also indicates the support of codebook based PUSCH MIMO transmission using *mimo-CB-PUSCH* and the support of PUSCH codebook coherency subset using *pusch-TransCoherence.* | FS | No | N/A | N/A |
| ***ul-FullPwrMode2-MaxSRS-ResInSet-r16***  Indicates the UE support of the maximum number of SRS resources in one SRS resource set with usage set to 'codebook' for uplink full power Mode 2 operation. If the UE indicates this capability the UE also indicates the support of codebook based PUSCH MIMO transmission using *mimo-CB-PUSCH* and the support of PUSCH codebook coherency subset using *pusch-TransCoherence.* A UE supports this feature shall support at least full power operation with single port. | FS | No | N/A | N/A |
| ***ul-FullPwrMode2-SRSConfig-diffNumSRSPorts-r16***  Indicates the UE supported SRS configuration with different number of antenna ports per SRS resource for uplink full power Mode 2 operation. The possible different number of antenna ports that can be configured for a SRS resource are as follow:  - value *p1-2* means that each SRS resource can be configured with 1 port or 2 ports  - value *p1-4* means that each SRS resource can be configured with 1 port or 4 ports  - value *p1-2-4* means that each SRS resource can be configured with 1 port or 2 ports or 4 ports  UE indicates support of this feature shall also indicate support of *ul-FullPwrMode2-MaxSRS-ResInSet.*  NOTE: The values *p1-2*, *p1-4* or *p1-2-4* can be used if *ul-FullPwrMode2-MaxSRS-ResInSet* is reported as *n2* or *n4*. | FS | No | N/A | N/A |
| ***ul-FullPwrMode2-TPMIGroup-r16***  Indicates the UE supported TPMI group(s) which delivers full power. The capability signalling comprises the following values:  - *twoPorts-r16* indicates a 2-bit bitmap, where the leading / leftmost bit (bit 0) corresponds to {TPMI index = 0}. The next bit (bit 1) corresponds to {TPMI index = 1} and the TPMI index is as specified in Table 6.3.1.5-1 of TS 38.211 [6]  - *fourPortsNonCoherent-r16* indicates the TPMI groups {G0-3}  - *fourPortsPartialCoherent-r16* indicates the TPMI groups {G0-6}  UE indicates support of this feature shall also indicate support of *ul-FullPwrMode2-MaxSRS-ResInSet.*  Definition of G0~G6 can be found in the table below:   |  |  | | --- | --- | | ID | TPMI groups | | G0 | , | | G1 | , , , | | G2 | , , , , | | G3 | , ,, | | G4 | , , | | G5 | , ,, ,, | | G6 | , ,,, ,  , , ,, |   NOTE 1: When a full coherent UE operates in mode 2, it reports TPMIs the same as a partial-coherent UE.  NOTE 2: For 4 port partial-coherent or full-coherent UE, UE can report: 2-port {2-bit bitmap} and one of 4-port non-coherent {G0~G3} and one of 4-port partial-coherent {G0~G6}  For 4 port non-coherent UE, UE can report: 2-port {2-bit bitmap} and one of 4-port non-coherent {G0~G3}  For 2 port UE, UE can report: 2-port {2-bit bitmap}  NOTE 3: A UE that supports this feature must report at least one of the values. | FS | No | N/A | N/A |
| ***ul-IntraUE-Mux-r16***  Indicates whether the UE supports intra-UE multiplexing/prioritization of overlapping PUCCH/PUCCH and PUCCH/PUSCH with two priority levels in the physical layer. This field includes the following parameters:  - *pusch-PreparationLowPriority-r16* indicates the additional number of symbols needed beyond the PUSCH preparation time for cancelling a low priority UL transmission;  - *pusch-PreparationHighPriority-r16* indicates the additional number of the preparation time needed for the high priority UL transmission that cancels a low priority UL transmission.  The value *sym0* denotes 0 symbol, *sym1* denotes one symbol, and so on. | FS | No | N/A | N/A |
| ***ul-IntraUE-MuxEnh-r18***  Indicates whether the UE supports intra-UE multiplexing/prioritization of overlapping PUCCH/PUCCH and PUCCH/PUSCH with two priority levels in physical layer for DCI format 1\_3/0\_3, including  - Configuration of PHY priority level for CG PUSCH and SR, and dynamic indication of priority level for dynamic PUSCH with a single DCI format 0\_3  - Multiplexing/prioritization between UL channels/signals with the same PHY priority level  - Prioritization between UL channels/signals with different PHY priority levels.  This field includes the following parameters:  - *pusch-PreparationLowPriority-r18* indicates the additional number of symbols needed beyond the PUSCH preparation time for cancelling a low priority UL transmission;  - *pusch-PreparationHighPriority-r18* indicates the additional number of symbols of the preparation time needed for the high priority UL transmission that cancels a low priority UL transmission.  The value *sym0* denotes 0 symbol, *sym1* denotes one symbol, and so on.  A UE supporting this feature shall also indicate support at least one of *multiCell-PDSCH-DCI-1-3-SameSCS-r18*, *multiCell-PDSCH-DCI-1-3-DiffSCS-r18*, *multiCell-PUSCH-DCI-0-3-SameSCS-r18*, and *multiCell-PUSCH-DCI-0-3-DiffSCS-r18*. | FS | No | N/A | N/A |
| ***ul-MCS-TableAlt-DynamicIndication***  Indicates whether the UE supports dynamic indication of MCS table using MCS-C-RNTI for PUSCH. | FS | No | N/A | N/A |
| ***zeroSlotOffsetAperiodicSRS***  Indicates whether the UE supports 0 slot offset between aperiodic SRS triggering and transmission, for SRS for CB PUSCH and antenna switching on FR1. | FS | No | N/A | N/A |

***Next Modified section***

### 4.2.9 *MeasAndMobParameters*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Definitions for parameters | Per | M | FDD-TDD DIFF | FR1-FR2 DIFF |
| ***cellIndividualOffsetPerMeasEvent-r18***  Indicates whether the UE supports the configuration of a cell individual offset per measurement event within *reportConfigNR* or *reportConfigInterRAT* as specified in TS 38.331 [9]. | UE | No | No | No |
| ***cli-RSSI-Meas-r16***  Indicates whether the UE can perform CLI RSSI measurements as specified in TS 38.215 [13] and supports periodical reporting and measurement event triggering as specified in TS 38.331 [9]. If the UE supports this feature, the UE needs to report *maxNumberCLI-RSSI-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measurement resources to be measured. | UE | No | TDD only | Yes |
| ***cli-SRS-RSRP-Meas-r16***  Indicates whether the UE can perform SRS RSRP measurements as specified in TS 38.215 [13] and supports periodical reporting and measurement event triggering based on SRS-RSRP as specified in TS 38.331 [9]. If the UE supports this feature, the UE needs to report *maxNumberCLI-SRS-RSRP-r16* and *maxNumberPerSlotCLI-SRS-RSRP-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measurement resources to be measured. | UE | No | TDD only | Yes |
| ***concurrentMeasCRS-InsideBWP-EUTRA-r18***  Indicates whether the UE supports concurrent inter-RAT measurement on EUTRAN cell in non-DSS with CRS and PDCCH or PDSCH reception from the serving cell with a different numerology.  A UE supporting this feature shall also indicate support of *eutra-NoGapMeasurementInsideBWP-r18* or *eutra-NoGapMeasurementOutsideBWP-r18*. | UE | No | No | FR1 only |
| ***concurrentMeasGap-r17***  Indicates whether the UE supports the concurrent measurements gaps as specified in TS 38.133 [5]. The capability signalling comprises the following parameters:  - *concurrentPerUE-OnlyMeasGap-r17* indicates whether the UE supports more than 1 per-UE measurement gap configurations (i.e. gap combination configuration id = 2 as specified in TS 38.133 [5]), or  *-* *concurrentPerUE-PerFRCombMeasGap-r17* indicates whether the UE supports all concurrent gap combination configurations as specified in TS 38.133 [5] including support of more than 1 per-UE measurement gap configurations. For UE capable of Rel-15 per-FR gap (*independentGapConfig*), this field indicates whether the UE supports more than 1 per-FR gap measurement gap configurations in an FR, or simultaneous 1 per UE measurement gap plus 1 per-FR measurement gap configurations in an FR, or more than 1 per-UE measurement gap configurations (i.e. gap combination configuration id = 2 as specified in TS 38.133 [5]). | UE | No | No | No |
| ***concurrentMeasGapEUTRA-r17***  Indicates whether the UE support the configurations of E-UTRAN measurement objectives associated with more than 1 concurrent measurement gaps as specified in TS 38.133 [5]. The UE indicating support of this feature shall also indicate support of *concurrentMeasGap-r17*. | UE | No | No | No |
| ***concurrentMeasGapsNCSG-r18***  Indicates whether the UE supports multiple per-UE (or per-FR) measurement gap patterns with at least one per-UE (or per-FR) NCSG as specified in TS 38.133 [5].  A UE supporting this feature shall also indicate support of *nr-NeedForGapNCSG-Reporting-r17* and *concurrentMeasGap-r17.* | UE | No | No | No |
| ***concurrentMeasGapsPreMG-r18***  Indicates whether the UE supports multiple per-UE (or per-FR) measurement gap patterns with at least one per-UE (or per-FR) Pre-MG as specified in TS 38.133 [5].  A UE supporting this feature shall also indicate support of *concurrentMeasGap-r17* and one of *preconfiguredNW-ControlledMeasGap-r17* and *preconfiguredUE-AutonomousMeasGap-r17*. | UE | No | No | No |
| ***condHandoverFDD-TDD-r16***  Indicates whether the UE supports conditional handover between FDD and TDD cells. The parameter can only be set if *condHandover-r16* is set for both FDD and TDD. The UE that indicates support of this feature shall also indicate support of *handoverFDD-TDD*. | UE | No | No | No |
| ***condHandoverFR1-FR2-r16***  Indicates whether the UE supports conditional handover HO between FR1 and FR2. The parameter can only be set if *condHandover-r16* is set for both FR1 and FR2. The UE that indicates support of this feature shall also indicate support of *handoverFR1-FR2*. | UE | No | No | No |
| ***condHandoverWithSCG-NRDC-r17***  Indicates whether the UE supports conditional handover with NR SCG configuration for NR-DC. The UE indicating support of this feature shall also indicate the support of *condHandover-r16* and support of at least one NR-DC band combination. | UE | No | No | No |
| ***csi-RS-RLM***  Indicates whether the UE can perform radio link monitoring procedure based on measurement of CSI-RS as specified in TS 38.213 [11] and TS 38.133 [5]. This parameter needs FR1 and FR2 differentiation. If the UE supports this feature, the UE needs to report *maxNumberResource-CSI-RS-RLM*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RS-RLM-r16* applies. | UE | Yes | No | Yes |
| ***csi-RSRP-AndRSRQ-MeasWithSSB***  Indicates whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured with an associated SS/PBCH. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RS-RLM-r16* applies. | UE | No | No | Yes |
| ***csi-RSRP-AndRSRQ-MeasWithoutSSB***  Indicates whether the UE can perform CSI-RSRP and CSI-RSRQ measurement as specified in TS 38.215 [13], where CSI-RS resource is configured for a cell that transmits SS/PBCH block and without an associated SS/PBCH block. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-RSRP-AndRSRQ-MeasWithoutSSB-r16* applies. | UE | No | No | Yes |
| ***csi-SINR-Meas***  Indicates whether the UE can perform CSI-SINR measurements based on configured CSI-RS resources as specified in TS 38.215 [13]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponding to the frequency range of measured target cell. If the UE supports this feature, the UE needs to report *maxNumberCSI-RS-RRM-RS-SINR*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *csi-SINR-Meas-r16* applies. | UE | No | No | Yes |
| ***deriveSSB-IndexFromCellInterNon-NCSG-r17***  Indicates whether the UE supports configuration of *deriveSSB-IndexFromCellInter-r17* in *MeasObjectNR*. This field applies to NR SA, MN configured measurements when NR-DC or NE-DC is configured, and SN configured measurements when NR-DC or (NG)EN-DC is configured. UE supporting this feature is required to meet the measurement requirements in TS 38.133 [5]. This field applies only to non-NCSG capable UEs (i.e. UEs not supporting *ncsg-MeasGapNR-Patterns-r17*). | UE | No | No | No |
| ***dynamicCollision-r18***  Indicates whether the UE supports RRM requirements for handling dynamic collisions between a Pre-MG and another measurement gap or Pre-MG.  A UE supporting this feature shall also indicate support of *concurrentMeasGapsPreMG-r18*. | UE | No | No | No |
| ***eutra-AutonomousGaps-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when MR-DC is not configured. | UE | No | No | No |
| ***eutra-AutonomousGaps-NEDC-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NE-DC is configured. | UE | No | No | No |
| ***eutra-AutonomousGaps-NRDC-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NR-DC is configured. | UE | No | No | No |
| ***eutra-CGI-Reporting***  Defines whether the UE supports acquisition of relevant CGI-information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. The consistent DRX configuration implies that MN and SN have the same DRX cycle and on-duration configured by MN completely contains on-duration configured by SN. It is mandated if the UE supports EUTRA. It is optional for (e)RedCap UEs. | UE | CY | No | No |
| ***eutra-CGI-Reporting-NEDC***  Defines whether the UE supports acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when theNE-DCis configured. | UE | No | No | No |
| ***eutra-CGI-Reporting-NRDC***  Defines whether the UE supports acquisition of relevant information from a neighbouring E-UTRA cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when theNR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same. | UE | No | No | No |
| ***eutra-MeasEMW-r18***  Indicates whether the UE supports configuration of effective measurement window for inter-RAT EUTRAN measurements, including offset, duration and periodicity.  The leftmost bit in the bitmap corresponds to EMW pattern #0 and the right most bit in the bitmap corresponds to EMW pattern #5. The bitmap for EMW patterns are defined in TS 38.133 [5].  EMW patterns #0 and #1 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if UE supports EMW feature. Other patterns are optional.  A UE supporting this feature shall also indicate support of *eutra-NoGapMeasurementOutsideBWP-r18* or *eutra-NoGapMeasurementInsideBWP-r18*.  NOTE: If UE supports *eutra-NoGapMeasurementOutsideBWP-r18* or *eutra-NoGapMeasurementInsideBWP-r18* and UE requires scheduling restriction, UE should support this feature. | UE | No | No | No |
| ***eutra-NeedForGapNCSG-Reporting-r17***  Indicates whether the UE supports reporting of the NCSG and measurement gap requirement information for E-UTRA target bands in the UE response to a network configuration RRC message as specified in TS 38.331 [9]. | UE | No | No | No |
| ***eutra-NoGapMeasurementInsideBWP-r18***  Indicates whether the UE supports inter-RAT EUTRAN measurements without gap when CRS is contained within UE's active DL BWP. | UE | No | No | FR1 only |
| ***eutra-NoGapMeasurementOutsideBWP-r18***  Indicates whether the UE supports inter-RAT EUTRAN measurements outside active DL BWP for nogap-noncsg.  A UE supporting this feature shall also indicate support of *eutra-NeedForGapNCSG-Reporting-r17*. | UE | No | No | No |
| ***eventA-MeasAndReport***  Indicates whether the UE supports NR measurements and events A triggered reporting as specified in TS 38.331 [9]. This field only applies to SN configured measurement when (NG)EN-DC is configured. For NR SA, MN and SN configured measurement when NR-DC is configured, and MN configured measurement when NE-DC is configured, this feature is mandatory supported. | UE | Yes | Yes | No |
| ***eventB-MeasAndReport***  Indicates whether the UE supports EUTRA measurement and event B triggered reporting as specified in TS 38.331 [9]. It is mandated if the UE supports EUTRA. | UE | CY | No | No |
| ***eventD1-MeasReportTrigger-r17***  Indicates whether the UE supports location-based triggered measurement reporting (i.e., event D1) as specified in TS 38.331 [9]. It is mandated if the UE supports *locationBasedCondHandover-r17* in any NTN band. It is mandated if the UE supports *locationBasedCondHandoverATG-r18* in any ATG band. | UE | CY | No | No |
| ***eventD2-MeasReportTrigger-r18***  Indicates whether the UE supports location-based triggered measurement reporting for an NTN Earth-moving system (i.e., event D2) as specified in TS 38.331 [9]. It is mandated if the UE supports *locationBasedCondHandoverEMC-r18* in any NTN band. | UE | CY | No | No |
| ***gNB-ID-LengthReporting-r17***  Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. The consistent DRX configuration implies that MN and SN have the same DRX cycle and on-duration configured by MN completely contains on-duration configured by SN. It is mandated if UE supports NR CGI reporting (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. | UE | CY | No | No |
| ***gNB-ID-LengthReporting-ENDC-r17***  Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when the (NG)EN-DC is configured. It is mandated if UE supports NR CGI reporting when (NG)EN-DC is configured. | UE | CY | No | No |
| ***gNB-ID-LengthReporting-NEDC-r17***  Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when the NE-DC is configured. It is mandated if UE supports NR CGI reporting when NE-DC is configured. | UE | CY | No | No |
| ***gNB-ID-LengthReporting-NRDC-r17***  Indicates whether the UE supports acquisition and reporting of gNB ID length from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same. It is mandated if UE supports NR CGI reporting when NR-DC is configured. | UE | CY | No | No |
| ***gNB-ID-LengthReporting-NPN-r17***  Indicates whether the UE supports acquisition of NPN-relevant gNB ID length from a neighbouring intra-frequency or inter-frequency NR NPN cell by reading the SI of the neighbouring cell and reporting the acquired gNB ID length to the network as specified in TS 38.331 [9]. It is mandated if UE supports NPN CGI reporting. | UE | CY | No | No |
| ***handoverLTE-5GC, handoverLTE-5GC-r17***  Indicates whether the UE supports HO to EUTRA connected to 5GC. It is mandated if the UE supports EUTRA connected to 5GC. | UE | CY | Yes | Yes  (Incl FR2-2 DIFF) |
| ***handoverFDD-TDD***  Indicates whether the UE supports HO between FDD and TDD. It is mandated if the UE supports both FDD and TDD. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover). For PSCell change when (NG)EN-DC/NR-DC is configured, this feature is mandatory supported. UEs supporting this shall indicate support of *handoverInterF* for both FDD and TDD. | UE | Yes | No | No |
| ***handoverFR1-FR2***  Indicates whether the UE supports HO between FR1 and FR2. Support is mandatory for the UE supporting both FR1 and FR2. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover). For PSCell change when (NG)EN-DC/NR-DC is configured, this feature is mandatory supported. UEs supporting this shall indicate support of *handoverInterF* for both FR1 and FR2. | UE | Yes | No | No |
| ***handoverFR1-FR2-2-r17***  Indicates whether the UE supports HO between FR1 and FR2-2. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover) and PSCell change when (NG)EN-DC/NR-DC is configured. UEs supporting this shall indicate support of *handoverInterF* for both FR1 and FR2-2. | UE | No | No | No |
| ***handoverFR2-1-FR2-2-r17***  Indicates whether the UE supports HO between FR2-1 and FR2-2. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover) and PSCell change when (NG)EN-DC/NR-DC is configured. UEs supporting this shall indicate support of *handoverInterF* for both FR2-1 and FR2-2. | UE | No | No | No |
| ***handoverInterF, handoverInterF-r17***  Indicates whether the UE supports inter-frequency HO. It indicates the support for inter-frequency HO from the corresponding duplex mode and from frequency range indicated to be supported as described in Annex B. This field only applies to NR SA/NR-DC/NE-DC (e.g. PCell handover). For PSCell change when (NG)EN-DC/NR-DC is configured, this feature is mandatory supported. | UE | Yes | Yes | Yes  (Incl FR2-2 DIFF) |
| ***handoverLTE-EPC, handoverLTE-EPC-r17***  Indicates whether the UE supports HO to EUTRA connected to EPC. It is mandated if the UE supports EUTRA connected to EPC. | UE | CY | Yes | Yes  (Incl FR2-2 DIFF) |
| ***idleInactiveNR-MeasReport-r16, idleInactiveNR-MeasReport-r17***  Indicates whether the UE supports configuration of NR SSB measurements in RRC\_IDLE/RRC\_INACTIVE and reporting of the corresponding results upon network request as specified in TS 38.331 [9]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. | UE | No | No | Yes  (Incl FR2-2 DIFF) |
| ***idleInactiveNR-MeasBeamReport-r16***  Indicates whether the UE supports beam level measurements in RRC\_IDLE/RRC\_INACTIVE and reporting of the corresponding beam measurement results upon network request as specified in TS 38.331 [9]. A UE supports this feature shall also support *idleInactiveNR-MeasReport-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. | UE | No | No | Yes |
| ***idleInactiveEUTRA-MeasReport-r16***  Indicates whether the UE supports configuration of E-UTRA measurements in RRC\_IDLE/RRC\_INACTIVE and reporting of the corresponding results upon network request as specified in TS 38.331 [9]. | UE | No | No | No |
| ***idleInactive-ValidityArea-r16***  Indicates whether the UE supports configuration of a validity area for NR measurements in RRC\_IDLE/RRC\_INACTIVE as specified in TS 38.331 [9]. | UE | No | No | No |
| ***increasedNumberofCSIRSPerMO-r16***  Indicates support of up to 192 CSI-RS resource for L3 mobility configuration per measurement object configured with *associatedSSB*. | UE | No | No | Yes |
| ***independentGapConfig***  This field indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 specified in clause 9.1.2 of TS 38.133 [5]. The field also indicates whether the UE supports the FR2 inter-RAT measurement without gaps when (NG)EN-DC is not configured. | UE | No | No | No |
| ***independentGapConfig-maxCC-r17***  This field indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 as specified in clause 9.1.2 of TS 38.133 [5] while the number of configured serving cells is less than or equal to the indicated number.  The capability signaling includes the following parameters:  - *fr1-Only-r17* indicates the maximum number of configured serving cells when only NR FR1 serving cells are configured  - *fr2-Only-r17* indicates the maximum number of configured serving cells when only NR FR2 serving cells are configured  - *fr1-AndFR2-r17* indicates the maximum number of configured serving cells when both NR FR1 and NR FR2 serving cells are configured  The absence of the *fr1-Only-r17* or *fr2-Only-r17* field indicates that per-FR gap is not supported when only FR1 or FR2 serving cells are configured. Absence of the *fr1-AndFR2* field indicates that per-FR-gap is not supported when both FR1 and FR2 serving cells are configured. Value "1" for *fr1-Only-r17* or *fr2-Only-r17* indicates support of the per-FR gap when only PCell is configured (no additional CC). Value "2" for *fr1-Only-r17* or *fr2-Only-r17* indicates support of the per-FR gap when PCell and 1 additional CC are configured, and so on. Value "1" or "2" for *fr1-AndFR2-r17* indicates the support of per-FR gap when PCell and "1" additional CC are configured.  UE indicating support of this feature in *UE-NR-Capability* shall not indicate support of *independentGapConfig* in *UE-NR-Capability*. | UE | No | No | No |
| ***independentGapConfigPRS-r17***  Indicates whether the UE supports two independent measurement gap configurations for FR1 and FR2 for PRS measurement, as specified in clause 9.1.2 of TS 38.133 [5]. | UE | No | No | No |
| ***intraAndInterF-MeasAndReport***  Indicates whether the UE supports NR intra-frequency and inter-frequency measurements and at least periodical reporting. This field only applies to SN configured measurement when (NG)EN-DC is configured. For NR SA, MN and SN configured measurement when NR-DC is configured, and MN configured measurement when NE-DC is configured, this feature is mandatory supported. | UE | Yes | Yes | No |
| ***interFrequencyMeas-NoGap-r16***  Indicates whether the UE can perform inter-frequency SSB based measurements without measurement gaps if the SSB is completely contained in the active BWP of the UE as specified in TS 38.133 [5]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of cells to be measured. | UE | No | No | Yes |
| ***interSatMeas-r17***  Indicates whether the UE supports inter-satellite measurement as specified in TS 38.331 [9]. It is mandatory if the UE supports *nonTerrestrialNetwork-r17*. | UE | CY | No | No |
| ***l3-MeasUnknownSCellActivation-r18***  Indicates whether the UE supports reporting valid L3 measurement results triggered by the unknown SCell activation command  UE is required to meet the shortened SCell activation delay requirement in TS 38.133 [5] if the feature is supported, including single SCell activation, single PUCCH SCell activation, and multiple SCell activation with/without PUCCH SCell. | UE | No | No | No |
| ***ltm-FastUE-Processing-r18***  Indicates the reduced TLTM\_processing delay of the UE during cell switch.  The capability signalling includes the following parameters:  - *fr1-r18* indicates the reduced TLTM\_processing for cell switch from FR1 to FR1.  - *fr2-r18* indicates the reduced TLTM\_processing for cell switch from FR2 to FR2.  - *fr1-AndFR2-r18* indicates the reduced TLTM\_processing for cell switch from FR1/FR2 to FR2/FR1. | UE | No | No | No |
| ***ltm-InterFreqMeasGap-r18***  Indicates whether the UE supports SSB based inter-frequency L1-RSRP measurements with measurement gaps for LTM.  A UE supporting this feature shall also indicate support of RAN1 FG45-1a. | UE | No | No | No |
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| ***maxNumberCLI-RSSI-r16***  Defines the maximum number of CLI-RSSI measurement resources for CLI RSSI measurement. If the UE supports *cli-RSSI-Meas-r16*, the UE shall report this capability. | UE | CY | TDD only | No |
| ***maxNumberCLI-SRS-RSRP-r16***  Defines the maximum number of SRS-RSRP measurement resources for SRS-RSRP measurement. If the UE supports *cli-SRS-RSRP-Meas-r16*, the UE shall report this capability.  NOTE 1: A slot is based on minimum SCS among active BWPs across all CCs configured for SRS-RSRP measurement.  NOTE 2: A SRS resource occasion that overlaps with the slot is counted as one measurement resource in the slot. | UE | CY | TDD only | No |
| ***maxNumberCSI-RS-RRM-RS-SINR***  Defines the maximum number of CSI-RS resources for RRM and RS-SINR measurement across all measurement frequencies per slot. If UE supports any of *csi-RSRP-AndRSRQ-MeasWithSSB*, *csi-RSRP-AndRSRQ-MeasWithoutSSB*, and *csi-SINR-Meas*, UE shall report this capability.  NOTE: A slot is based on minimum SCS among all measurement frequencies configured for RRM and RS-SINR measurement. | UE | CY | No | No |
| ***maxNumberPerSlotCLI-SRS-RSRP-r16***  Defines the maximum number of SRS-RSRP measurement resources per slot for SRS-RSRP measurement. If the UE supports *cli-SRS-RSRP-Meas-r16*, the UE shall report this capability. | UE | CY | TDD only | No |
| ***maxNumberResource-CSI-RS-RLM***  Defines the maximum number of CSI-RS resources within a slot per spCell for CSI-RS based RLM. If UE supports any of *csi-RS-RLM* and *ssb-AndCSI-RS-RLM*, UE shall report this capability. | UE | CY | No | Yes |
| ***measSequenceConfig-r18***  Indicates whether the UE supports configuration of *measSequence-r18* in *MeasObjectNR* and *MeasObjectEUTRA* for recommended sequence for intra/inter-RAT intra/inter-frequency measurement. | UE | No | No | No |
| ***ncsg-MeasGapNR-Patterns-r17***  Indicates whether the UE supports NR-only NCSG patterns. The left most bit in the bitmap corresponds to NCSG pattern #0 and the right most bit in the bitmap corresponds to NCSG pattern #23. A bit in the bitmap is set to 1 if the corresponding pattern is supported by the UE. NCSG patterns #0 to #23 are as specified in TS 38.133 [5].  NCSG patterns #2 and #3 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if the UE includes this field. NCSG patterns #17 and #18 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if UE includes this field and supports a FR2 band. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17*. | UE | No | No | No |
| ***ncsg-MeasGapPatterns-r17***  Indicates whether the UE supports NCSG patterns. The left most bit in the bitmap corresponds to NCSG pattern #0 and the right most bit in the bitmap corresponds to NCSG pattern #23. A bit in the bitmap is set to 1 if the corresponding pattern is supported by the UE. NCSG patterns #0 to #23 are as specified in TS 38.133 [5].  NCSG patterns #0 and #1 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if the UE includes this field. NCSG patterns #13 and #14 are mandatory (i.e. the corresponding bits in the bitmap is set to 1) if UE supports *ncsg-MeasGapPerFR-r17* or if the UE is NCSG capable and supports FR2 band in standalone mode. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17* or *eutra-NeedForGapNCSG-Reporting-r17*. | UE | No | No | No |
| ***ncsg-MeasGapPerFR-r17***  Indicates whether the UE supports per-FR NCSG. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17*. | UE | No | No | No |
| ***ncsg-SymbolLevelScheduleRestrictionInter-r17***  Indicates whether the UE supports performing measurement with NCSG based on flag *deriveSSB-IndexFromCell-inter* and meeting the following requirements that the scheduling restriction in FR2 serving cell during NCSG ML is on SSB symbol level. UEs supporting this shall indicate support of *nr-NeedForGapNCSG-Reporting-r17*. | UE | No | No | FR2 only |
| ***nr-AutonomousGaps-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when MR-DC is not configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. | UE | No | No | Yes |
| ***nr-AutonomousGaps-ENDC-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when (NG)EN-DC is configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. | UE | No | No | Yes |
| ***nr-AutonomousGaps-NEDC-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NE-DC is configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. | UE | No | No | Yes |
| ***nr-AutonomousGaps-NRDC-r16***  Defines whether the UE supports, upon configuration of *useAutonomousGaps* by the network, acquisition of relevant information from a neighbouring NR cell by reading the SI of the neighbouring cell using autonomous gap and reporting the acquired information to the network as specified in TS 38.331 [9] when NR-DC is configured. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. | UE | No | No | Yes |
| ***nr-CGI-Reporting***  Defines whether the UE supports acquisition of relevant CGI-information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when (NG)EN-DC and NE-DC are not configured or, when consistent DRX is configured in NR-DC. The consistent DRX configuration implies that MN and SN have the same DRX cycle and on-duration configured by MN completely contains on-duration configured by SN. It is optional for (e)RedCap UEs. | UE | CY | No | No |
| ***nr-CGI-Reporting-ENDC***  Defines whether the UE supports acquisition of relevant CGI-information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the (NG)EN-DC is configured. | UE | Yes | No | No |
| ***nr-CGI-Reporting-NEDC***  Defines whether the UE supports acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NE-DC is configured. | UE | Yes | No | No |
| ***nr-CGI-Reporting-NPN-r16***  Defines whether the UE supports acquisition of NPN-relevant CGI-information from a neighbouring intra-frequency or inter-frequency NR NPN cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9]. If UE supports NPN, UE shall report this capability. It is optional for (e)RedCap UEs. | UE | CY | No | No |
| ***nr-CGI-Reporting-NRDC***  Defines whether the UE supports acquisition of relevant information from a neighbouring intra-frequency or inter-frequency NR cell by reading the SI of the neighbouring cell and reporting the acquired information to the network as specified in TS 38.331 [9] when the NR-DC is configured wherein MN and SN have different DRX cycles, or on-duration configured by MN does not contain on-duration configured by SN if the DRX cycles are the same. | UE | Yes | No | No |
| ***nr-NeedForGapNCSG-Reporting-r17***  Indicates whether the UE supports reporting of the NCSG and measurement gap requirement information for SSB based measurement in the UE response to a network configuration RRC message as specified in TS 38.331 [9]. | UE | No | No | No |
| ***nr-NeedForGap-Reporting-r16***  Indicates whether the UE supports reporting the measurement gap requirement information for NR target in the UE response to a network configuration RRC message. | UE | No | No | No |
| ***nr-NeedForInterruptionReport-r18***  Indicates whether the UE supports reporting the interruption requirement information for SSB based measurement towards NR target without gap in the UE response to a network configuration RRC message. The UE supporting this feature shall also indicate support of *nr-NeedForGap-Reporting-r16*. | UE | No | No | No |
| ***parallelMeasurementGap-r17***  Indicates whether the UE supports 2 parallel measurement gaps for NTN SSB based RRM measurements. If a UE does not include this field but includes *nonTerrestrialNetwork-r17*, the UE supports 1 measurement gap for NTN SSB based RRM measurements. If this parameter is indicated, a UE shall also support that two parallel measurement gaps with the same gap type can be associated to one frequency layer. A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. | UE | No | FDD only | FR1 only |
| ***parallelSMTC-r17***  Indicates whether the UE supports NTN SSB based RRM measurements on target cells belonging to 4 SMTC-s on a single frequency carrier. If a UE does not include this field but includes *nonTerrestrialNetwork-r17*, the UE supports NTN SSB based RRM measurements on target cells belonging to 2 SMTC-s on a single frequency carrier. | UE | No | FDD only | FR1 only |
| ***periodicEUTRA-MeasAndReport***  Indicates whether the UE supports periodic EUTRA measurement and reporting. It is mandated if the UE supports EUTRA. | UE | CY | No | No |
| ***pcellT312-r16***  Indicates whether the UE supports T312 based fast failure recovery for PCell. | UE | No | No | No |
| ***preconfiguredUE-AutonomousMeasGap-r17*** Indicates whether the UE supports the preconfigured measurement gap with UE-autonomous mechanism for activation and deactivation as specified in TS 38.133 [5]. | UE | No | No | No |
| ***preconfiguredNW-ControlledMeasGap-r17*** Indicates whether the UE supports the preconfigured measurement gap with network-controlled mechanism for activation and deactivation as specified in TS 38.133 [5]. | UE | No | No | No |
| ***reportAddNeighMeasForPeriodic-r16***  Defines whether the UE supports periodic reporting of best neighbour cells per serving frequency, as defined in TS 38.331 [9]. It is optional for (e)RedCap UEs. | UE | CY | No | No |
| ***serviceLinkPropDelayDiffReporting-r17***  Indicates whether the UE supports the reporting of service link propagation delay difference between serving cell and neighbour cell(s). A UE supporting this feature shall also indicate the support of *nonTerrestrialNetwork-r17*. | UE | No | No | No |
| ***shortMeasInterval-r18***  Indicates whether the UE supports using SSB periodicity instead of SMTC periodicity for the measurement interval during unknown SCell activation when the SMTC is only configured in measurement object for enhanced unknown SCell activation requirement and performing L1-RSRP measurement in non-DRX mode even DRX is configured during unknown SCell activation.  UE is required to meet the shortened SCell activation delay requirement in TS 38.133 [5] if the feature is supported. | UE | No | No | No |
| ***simultaneousRxDataSSB-DiffNumerology***  Indicates whether the UE supports concurrent intra-frequency measurement on serving cell or neighbouring cell and PDCCH or PDSCH reception from the serving cell with a different numerology as defined in clause 8 and 9 of TS 38.133 [5]. | UE | No | No | Yes |
| ***simultaneousRxDataSSB-DiffNumerology-Inter-r16***  Indicates whether the UE supports concurrent SSB based inter-frequency measurement without measurement gap on neighbouring cell and PDCCH or PDSCH reception from the serving cell with a different numerology as defined in clause 8 and 9 of TS 38.133 [5]. UE indicates support of this indicates support of *interFrequencyMeas-NoGap-r16*. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range where the SSB and PDCCH/PDSCH are received. | UE | No | No | Yes |
| ***sftd-MeasPSCell***  Indicates whether the UE supports SFTD measurements between the PCell and a configured PSCell. If this capability is included in UE-MRDC-Capability, it indicates that the UE supports SFTD measurement between PCell and PSCell in (NG)EN-DC. If this capability is included in UE-NR-Capability, it indicates that the UE supports SFTD measurement between PCell and PSCell in NR-DC. | UE | No | Yes | No |
| ***sftd-MeasPSCell-NEDC***  Indicates whether the UE supports SFTD measurement between the NR PCell and a configured E-UTRA PSCell in NE-DC. | UE | No | Yes | No |
| ***sftd-MeasNR-Cell***  Indicates whether the SFTD measurement with and without measurement gaps between the EUTRA PCell and the NR cells is supported by the UE which is capable of EN-DC/NGEN-DC when EN-DC/NGEN-DC is not configured. The SFTD measurement without gaps can be used when the UE supports at least one EN-DC band combination consisting of the set of the current E-UTRA serving frequencies and the NR frequency where SFTD measurement is configured. In UE-NR-Capability, this field is not used, and UE does not include the field. | UE | No | Yes | No |
| ***sftd-MeasNR-Neigh***  Indicates whether the inter-frequency SFTD measurement with and without measurement gaps between the NR PCell and inter-frequency NR neighbour cells is supported by the UE when MR-DC is not configured. The SFTD measurement without gaps can be used when the UE supports at least one DC or CA band combination consisting of the set of the current NR serving frequencies and the NR frequency where SFTD measurement is configured. | UE | No | Yes | No |
| ***sftd-MeasNR-Neigh-DRX***  Indicates whether the inter-frequency SFTD measurement using DRX off period between the NR PCell and the inter-frequency NR neighbour cells is supported by the UE when MR-DC is not configured. | UE | No | Yes | No |
| ***ssb-RLM***  Indicates whether the UE can perform radio link monitoring procedure based on measurement of SS/PBCH block as specified in TS 38.213 [11] and TS 38.133 [5]. This field shall be set to *supported*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *ssb-RLM-DynamicChAccess-r16* or *ssb-RLM-Semi-StaticChAccess-r16* applies. | UE | Yes | No | No |
| ***ssb-AndCSI-RS-RLM***  Indicates whether the UE can perform radio link monitoring procedure based on measurement of SS/PBCH block and CSI-RS as specified in TS 38.213 [11] and TS 38.133 [5]. If the UE supports this feature, the UE needs to report *maxNumberResource-CSI-RS-RLM*. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *ssb-AndCSI-RS-RLM-r16* applies. | UE | No | No | No |
| ***ss-SINR-Meas***  Indicates whether the UE can perform SS-SINR measurement as specified in TS 38.215 [13]. If this parameter is indicated for FR1 and FR2 differently, each indication corresponds to the frequency range of measured target cell. This applies only to non-shared spectrum channel access. For shared spectrum channel access, *ss-SINR-Meas-r16* applies. | UE | No | No | Yes |
| ***supportedGapPattern***  Indicates measurement gap pattern(s) optionally supported by the UE for NR SA, for NR-DC, for NE-DC and for independent measurement gap configuration on FR2 in (NG)EN-DC. The leading / leftmost bit (bit 0) corresponds to the gap pattern 2, the next bit corresponds to the gap pattern 3, as specified in TS 38.133 [5] and so on. The UE shall set the bits corresponding to the measurement gap pattern 13, 14, 17, 18 and 19 to 1 if the UE is an NR standalone capable UE that supports a band in FR2 or if the UE is an (NG)EN-DC capable UE that supports *independentGapConfig* and supports a band in FR2. | UE | CY | No | No |
| ***supportedGapPattern-r16***  Indicates measurement gap pattern(s) optionally supported by the UE for NR SA, for NR-DC for PRS measurement and NR/E-UTRA RRM measurement. The leading / leftmost bit (bit 0) corresponds to the gap pattern 24, the next bit corresponds to the gap pattern 25, as specified in TS 38.133 [5]. The applicability of the gap patterns 24 and 25 is defined in clause 9.1.2 of TS 38.133 [5]. A UE that indicates support of this capability shall indicate support of *NR-DL-PRS-ProcessingCapability-r16* defined in TS 37.355 [22]. | UE | No | No | No |
| ***supportedGapPattern-NRonly-r16***  Indicates measurement gap pattern(s) optionally supported by the UE for NR SA and NR-DC when the frequencies to be measured within this measurement gap are all NR frequencies. The leading / leftmost bit (bit 0) corresponds to the gap pattern 2, the next bit corresponds to the gap pattern 3 and so on. The UE shall set the bits corresponding to the measurement gap pattern 2, 3 and 11 to 1. | UE | FD | No | No |
| ***supportedGapPattern-NRonly-NEDC-r16***  Indicates whether the UE supports gap patterns 2, 3 and 11 in NE-DC when the frequencies to be measured within this measurement gap are all NR frequencies. | UE | No | No | No |