**3GPP TSG-RAN WG2 Meeting #110-e *Draft R2-2006363***

**Electronic meeting, 1 - 12 June 2020**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.306** | **CR** | **1757** | **rev** | **2** | **Current version:** | **16.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

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

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Introduction of UE capabilities for eDCCA | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | LTE\_NR\_DC\_CA\_enh-Core | | | | |  | ***Date:*** | | | 27/05/2020 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-16 |
|  | *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-12 (Release 12) Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | Introduction of UE capabilities for eDCCA | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Addition of the following capabilities  Measurement parameters:  - ca-IdleInactiveMeasurements-r16  - endc-IdleInactiveMeasFR1-r16  - endc-IdleInactiveMeasFR2-r16  - idleInactiveValidityAreaList-r16  Other parameters:  - resumeWithStoredMCG-SCells-r16  - resumeWithMCG-SCellConfig-r16  - resumeWithStoredSCG-r16  - resumeWithSCG-Config-r16  - mcgRLF-RecoveryViaSCG-r16  MAC parameters:  - directMCG-SCellActivationResume-r16  - directSCG-SCellActivationResume-r16 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | UE capabilities for eDCCA are missing | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.6, 4.3.15, 4.3.19 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 36.331 CR 4283 r1 | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

## 4.3 Parameters independent of the field *ue-Category* and *ue-CategoryDL / ue-CategoryUL*

### 4.3.6 Measurement parameters

#### 4.3.6.1 *interFreqNeedForGaps* and *interRAT-NeedForGaps*

These fields define for each supported E-UTRA band whether measurement gaps are required to perform inter-frequency measurements on each supported E-UTRA radio frequency band and inter-RAT measurements on each supported RAT/band combination. A UE also indicates for each band combination as in the supportedBandCombination whether measurement gaps are required to perform inter-frequency measurements on each supported E-UTRA radio frequency band and inter-RAT measurements on each supported RAT/band combination.

#### 4.3.6.2 *rsrqMeasWideband*

This field defines whether the UE can perform RSRQ measurements in RRC\_IDLE and RRC\_CONNECTED with wider bandwidth as specified in TS 36.133 [16].

#### 4.3.6.3 *timerT312-r12*

This field defines whether the UE supports T312 as specified in TS 36.331 [5].

#### 4.3.6.4 *alternativeTimeToTrigger-r12*

This field defines whether the UE supports alternativeTimeToTrigger as specified in TS 36.331 [5].

#### 4.3.6.5 *benefitsFromInterruption-r11*

This field indicates whether the UE power consumption could benefit from being allowed to cause interruptions to serving cells when performing measurements of deactivated SCell carriers for *measCycleSCell* of less than 640ms, as specified in TS 36.133 [16].

#### 4.3.6.6 *incMonEUTRA-r12*

This field defines whether the UE supports increased number of E-UTRA carrier monitoring in RRC\_IDLE and RRC\_CONNECTED as specified in TS 36.133 [16], and whether the UE supports extended number of cell re-selection priorities for EUTRA frequencies in *RRCConnectionRelease*, as specified in TS 36.331 [5]. It is mandatory for UEs of this release of the specification, except for Category 0 and 1bis UEs.

A UE that supports increased number of E-UTRA carrier monitoring shall also support extended number of measurement identities.

#### 4.3.6.7 *incMonUTRA-r12*

This field defines whether the UE supports increased number of UTRA carrier monitoring in RRC\_IDLE and RRC\_CONNECTED as specified in TS 36.133 [16].

A UE that supports increased number of UTRA carrier monitoring shall also support extended number of measurement identities.

#### 4.3.6.8 *extendedMaxMeasId-r12*

This field defines whether the UE supports extended number of measurement identities as defined by *maxMeasId-r12* in TS 36.331 [5].

It is mandatory for UEs of this release of the specification if *incMonEUTRA-r12* or *incMonUTRA-r12* or *dc-Support-r12* or *extendedMaxObjectId-r13* is supported.

#### 4.3.6.9 *crs-DiscoverySignalsMeas-r12*

This field defines whether the UE supports CRS based discovery signals measurement as specified in TS 36.331 [5], and PDSCH/EPDCCH RE mapping with zero power CSI-RS configured for discovery signals.

#### 4.3.6.10 *csi-RS-DiscoverySignalsMeas-r12*

This field defines whether the UE supports CSI-RS based discovery signals measurement as specified in TS 36.331 [5]. A UE that supports this feature shall also support *crs-DiscoverySignalsMeas-r12*.

#### 4.3.6.11 *extendedRSRQ-LowerRange-r12*

This field defines whether the UE supports the extended RSRQ lower value range from -34dB to -19.5dB in measurement configuration and reporting as specified in TS 36.133 [16].

#### 4.3.6.12 *rsrq-OnAllSymbols-r12*

This field defines whether the UE supports the RSRQ measurement on all OFDM symbols as specified in TS 36.214 [23] and also the extended RSRQ upper value range from -3dB to 2.5dB in measurement configuration and reporting as specified in TS 36.133 [16]. If the UE supports *rsrq-OnAllSymbols-r12* and *rsrqMeasWideband* it shall also support the RSRQ measurement on all OFDM symbols with wider bandwidth.

#### 4.3.6.13 *rs-SINR-Meas-r13*

This field defines whether the UE can perform RS-SINR measurements in RRC\_CONNECTED as specified in TS 36.214 [23].

#### 4.3.6.14 *whiteCellList-r13*

This field defines whether the UE supports configuration and use of white-listed cells as specified in TS 36.331 [5].

#### 4.3.6.15 *extendedFreqPriorities-r13*

This field defines whether the UE supports extended E-UTRA frequency priorities as specified in TS 36.331 [5] and indicated by *cellReselectionSubPriority* field.

A UE supporting NR SA operation shall support extended E-UTRA frequency priorities and NR frequency priorities as specified in TS 36.331 [9] and indicated by *CellReselectionSubPriority* field.

#### 4.3.6.16 *extendedMaxObjectId-r13*

This field defines whether the UE supports extended number of measurement object identities as defined by *maxObjectId-r13* in TS 36.331 [5]. The field is mandatory present for the UE supporting the configuration of *sCellToAddModListExt*. A UE indicating support of *extendedMaxObjectId-r13* shall also indicate the support of *extendedMaxMeasId-r12*.

#### 4.3.6.17 *ul-PDCP-Delay-r13*

This field defines whether the UE supports UL PDCP Packet Delay per QCI measurement as specified in TS 36.314 [25]. A UE that supports the UL PDCP Delay measurement shall also support the measurement configuration and reporting as specified in TS 36.331 [5].

#### 4.3.6.18 Void

#### 4.3.6.19 *rssi-AndChannelOccupancyReporting-r13*

This field defines whether the UE supports measurement and reporting for RSSI and channel occupancy. This field is only applicable if the UE supports downlink LAA operation.

#### 4.3.6.20 *multiBandInfoReport-r13*

This field defines whether the UE supports the acquisition and reporting of multi band information for *reportCGI* as specified in TS 36.331 [5].

#### 4.3.6.21 Void

#### 4.3.6.22 Void

#### 4.3.6.23 *ceMeasurements-r14*

This field defines whether the UE supports intra-frequency RSRQ measurements and inter-frequency RSRP and RSRQ measurements in RRC\_CONNECTED, as specified in TS 36.133 [16], TS 36.304 [14] and TS 36.331 [5]. In this release of specification, it is mandatory for UEs of Category M1 and M2 and UEs that support coverage enhancements to support *ceMeasurements-r14*. A UE indicating support of *ceMeasurements-r14* shall also indicate support of *ce-ModeA-r13*.

#### 4.3.6.24 *ncsg-r14*

This field defines whether the UE supports NCSG gap as specified in TS 36.133 [16]. If the UE supports *ncsg-r14* and asynchronous DC, the UE shall support NCSG Pattern Id 0, 1, 2 and 3. If the UE supports ncsg-r14 but the UE does not support asynchronous DC, only NCSG Pattern Id 0 and 1 shall be supported.

#### 4.3.6.25 *perServingCellMeasurementGap-r14*

This field defines whether the UE supports per CC measurement gap as specified in TS 36.331 [5].

#### 4.3.6.26 *shortMeasurementGap-r14*

This field defines whether the UE supports shorter measurement gap length (i.e. *gp2* and *gp3*) in LTE standalone as specified in TS 36.133 [16], and for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC as specified in TS38.133 [37].

#### 4.3.6.27 *nonUniformGap-r14*

This field defines whether the UE supports measurement non uniform Pattern Id 1, 2, 3 and 4 in LTE standalone as specified in TS 36.133 [16].

#### 4.3.6.28 *rlm-ReportSupport-r14*

This field defines whether the UE supports RLM event and information reporting as specified in TS 36.133 [16].

#### 4.3.6.29 Void

#### 4.3.6.30 *qoe-MeasReport-r15*

This field defines whether the UE supports QoE Measurement Collection for streaming services.

#### 4.3.6.31 *ca-IdleModeMeasurements-r15*

This field defines whether the UE supports performing eNB-configured CRS-based RRM measurements for configured carrier(s) in RRC\_IDLE mode, including reporting them when requested by eNB while in RRC\_CONNECTED, as specified in TS 36.331 [5].

#### 4.3.6.32 *ca-IdleModeValidityArea-r15*

This field defines whether the UE supports configuration of *validityArea* for performing eNB-configured CRS-based RRM measurements for configured carrier(s) in RRC\_IDLE mode, as specified in TS 36.331 [5]. A UE that supports this feature shall also indicate support of support *ca-IdleModeMeasurements-r15*.

#### 4.3.6.33 *qoe-MTSI-MeasReport-r15*

This field defines whether the UE supports QoE Measurement Collection for MTSI services.

#### 4.3.6.34 *multipleCellsMeasExtension-r15*

This field defines whether the UE supports measurement reporting triggered based on a number of cells.It is mandatory to support this feature for UEs which have Aerial UE subscription as defined in TS 23.401 [18].

#### 4.3.6.35 *heightMeas-r15*

This field defines whether the UE supports height-based measurement reporting as specified in TS 36.331 [5]. It is mandatory to support this feature for UEs which have Aerial UE subscription as defined in TS 23.401 [18].

#### 4.3.6.36 *measGapPatterns-r15*

This field defines whether the UE that supports NR supports gap patterns 4 to 11 in LTE standalone as specified in TS 36.133 [16], and for independent measurement gap configuration on FR1 and per-UE gap in (NG)EN-DC as specified in TS38.133 [37].

#### 4.3.6.37 *dl-ChannelQualityReporting-r16*

This field defines whether the UE supports DL channel quality reporting of the serving cell or configured carrier for FDD in RRC\_CONNECTED as specified in TS 36.331 [5]. This feature is only applicable if the UE supports *ce-ModeA-r13* or if the UE supports any *ue-Category-NB*.

Editor's note: Whether to have a common or separate capability with MTC, and how to name it if common.

4.3.6.x1 *ca-IdleInactiveMeasurements-r16*

This field defines whether the UE supports:

- (if the UE also indicates support of *inactiveState-r15*), performing eNB-configured CRS-based RRM measurements for configured carrier(s) in RRC\_INACTIVE, including reporting them when requested by the eNB while resuming from RRC\_INACTIVE or in RRC\_CONNECTED, as specified in TS 36.331 [5];

- (if the UE also indicates support of RRC connection suspension), reporting eNB-configured CRS-based RRM measurements for configured carrier(s) in RRC\_IDLE while resuming the RRC connection from RRC\_IDLE, as specified in TS 36.331 [5];

A UE that indicates support of this feature shall also indicate support of *ca-IdleModeMeasurements-r15*.

4.3.6.x2 *endc-IdleInactiveMeasFR1-r16*

This field defines whether the UE supports performing eNB-configured SSB-based RRM measurements for configured NR FR1 carrier(s) in RRC\_IDLE and in RRC\_INACTIVE (if the UE also indicates support of *inactiveState-r15*), including reporting them when requested by the eNB while resuming from RRC\_IDLE/RRC\_INACTIVE or in RRC\_CONNECTED, as specified in TS 36.331 [5].

4.3.6.x3 *endc-IdleInactiveMeasFR2-r16*

This field defines whether the UE supports performing eNB-configured SSB-based RRM measurements for configured NR FR2 carrier(s) in RRC\_IDLE and in RRC\_INACTIVE (if the UE also indicates support of *inactiveState-r15*), including reporting them when requested by the eNB while resuming from RRC\_IDLE/RRC\_INACTIVE or in RRC\_CONNECTED, as specified in TS 36.331 [5].

4.3.6.x4 *idleInactiveValidityAreaList-r16*

This field defines whether the UE supports configuration of *validityAreaList-r16* for performing eNB-configured measurements for configured carrier(s) in RRC\_IDLE and in RRC\_INACTIVE (if the UE supports *inactiveState-r15*), as specified in TS 36.331 [5].

A UE that indicates support of this feature shall also indicate support of *ca-IdleInactiveMeasurements-r16* or *endc-IdleInactiveMeasFR1-r16* or *endc-IdleInactiveMeasFR2-r16*.

### 4.3.15 Other parameters

#### 4.3.15.1 Void

#### 4.3.15.2 *inDeviceCoexInd-r11*

This parameter defines whether the UE supports in-device coexistence indication as well as autonomous denial functionality as specified in TS 36.331 [5].

#### 4.3.15.3 *powerPrefInd-r11*

This parameter defines whether the UE supports power preference indication as specified in TS 36.331 [5].

#### 4.3.15.4 *ue-Rx-TxTimeDiffMeasurements-r11*

This parameter defines whether the UE supports Rx - Tx time difference measurements as specified in TS 36.331 [5] and TS 36.355 [13]. A TDD UE of this release of the specification that supports UE Rx-Tx time difference measurements, shall support to report UE Rx-Tx time difference measurement result including NTAoffset according to EUTRAN TDD Rx-Tx time difference measurement report mapping as specified in TS 36.133 [16].

#### 4.3.15.5 Void

#### 4.3.15.6 Void

#### 4.3.15.7 Void

#### 4.3.15.8 *inDeviceCoexInd-UL-CA-r11*

This parameter defines whether the UE supports UL CA related in-device coexistence indication as specified in TS 36.331 [5]. A UE that supports UL CA related in-device coexistence indication shall also support in-device coexistence indication.

#### 4.3.15.9 *bwPrefInd-r14*

This parameter defines whether the UE supports maximum PDSCH/PUSCH bandwidth preference indication as specified in TS 36.331 [5]. A UE indicating support of *bwPrefInd-r14* shall also indicate support of *ce-ModeA-r13*.

#### 4.3.15.10 *inDeviceCoexInd-HardwareSharingInd-r13*

This parameter defines whether the UE supports hardware sharing indication as specified in TS 36.331 [5]. A UE that supports hardware sharing indication shall also indicate support of LAA operation.

#### 4.3.15.11 *overheatingInd-r14*

This parameter defines whether the UE supports overheating assistance information as specified in TS 36.331 [5].

#### 4.3.15.12 *assistInfoBitForLC-r15*

This parameter defines whether the UE supports assistance information bit for local cache as specified in TS 36.323 [2].

#### 4.3.15.13 *timeReferenceProvision-r15*

This parameter defines whether the UE supports provision of time reference message *TimeReferenceInformation* as specified in TS 36.331 [5].

#### 4.3.15.14 *flightPathPlan-r15*

This field defines whether the UE supports reporting of the flight path plan through the procedure defined in TS 36.331 [5].

#### 4.3.15.15 *inDeviceCoexInd-ENDC-r15*

This parameter defines whether the UE supports in-device coexistence indication for EN-DC operation as specified in TS 36.331 [5]. A UE that supports in-device coexistence indication for EN-DC operation shall also support in-device coexistence indication.

#### 4.3.15.16 *nonCSG-SI-Reporting-r14*

This parameter defines whether the UE supports reporting of PLMN list from cells not broadcasting the field *csg-Identity*.

4.3.15.x1 *resumeWithStoredMCG-SCells-r16*

This parameter defines whether the UE supports not deleting the stored E-UTRA MCG SCell configuration when initiating the resume procedure as specified in TS 36.331 [5]. A UE indicating support of *resumeWithStoredMCG-SCells -r16* shall also indicate support of *resumeWithMCG-SCellConfig -r16*.

4.3.15.x2 *resumeWithMCG-SCellConfig-r16*

This parameter defines whether the UE supports (re-)configuration of E-UTRA MCG SCells in the *RRCConnectionResume* message as specified in TS 36.331 [5].

4.3.15.x3 *resumeWithStoredSCG-r16*

This parameter defines whether the UE supports not deleting the stored NR SCG configuration when initiating the resume procedure as specified in TS 36.331 [5]. A UE indicating support of *resumeWithStoredSCG -r16* shall also indicate support of *resumeWithSCG-Config -r16*.

4.3.15.x4 *resumeWithSCG-Config-r16*

This parameter defines whether the UE supports (re-)configuration of an NR SCG in the *RRCConnectionResume* message as specified in TS 36.331 [5].

4.3.15.x5 *mcgRLF-RecoveryViaSCG-r16*

This parameter defines whether the UE supports recovery from MCG RLF via split SRB1 (if supported) and via SRB3 (if supported) as specified in TS 36.331 [5].

### 4.3.19 MAC parameters

#### 4.3.19.1 *longDRX-Command-r12*

This field defines whether the UE supports Long DRX Command MAC Control Element as specified in TS 36.321 [4]. It is mandatory for UEs of this release of the specification.

#### 4.3.19.2 *logicalChannelSR-ProhibitTimer-r12*

This field defines whether the UE supports the *logicalChannelSR-ProhibitTimer* as specified in TS 36.321 [4]. It is mandatory for UEs of any *ue-Category-NB* to support this feature.

#### 4.3.19.3 *extendedMAC-LengthField-r13*

This field defines whether the UE supports 16 bit length of MAC L field as specified in TS 36.321 [4].

#### 4.3.19.4 *extendedLongDRX-r13*

This field defines whether the UE supports the *longDRX-Cycle* values of 5120 and 10240 subframes as specified in TS 36.321 [4].

#### 4.3.19.5 *shortSPS-IntervalFDD-r14*

This field indicates whether the UE supports uplink SPS intervals shorter than 10 subframes in FDD mode. A UE that supports *shortSPS-IntervalFDD-r14* shall also support *skipUplinkSPS-r14*.

#### 4.3.19.6 *shortSPS-IntervalTDD-r14*

This field indicates whether the UE supports uplink SPS intervals shorter than 10 subframes in TDD mode. A UE that supports *shortSPS-IntervalTDD-r14* shall also support *skipUplinkSPS-r14*.

#### 4.3.19.7 *skipUplinkDynamic-r14*

This field indicates whether the UE supports skipping of UL transmission for an uplink grant indicated on PDCCH if no data is available for transmission as specified in TS 36.321 [4].

#### 4.3.19.8 *skipUplinkSPS-r14*

This field indicates whether the UE supports skipping of UL transmission for a configured uplink grant if no data is available for transmission as specified in TS 36.321 [4].

#### 4.3.19.9 *dataInactMon-r14*

This field defines whether the UE supports data inactivity monitoring as specified in TS 36.321 [4].

#### 4.3.19.10 *rai-Support-r14*

This field defines whether the UE supports Release Assistance Indication (RAI) as specified in TS 36.321 [4]. This field is only applicable if the UE supports UE category M1 or UE category M2 or any *ue-Category-NB*.

#### 4.3.19.11 *multipleUplinkSPS-r14*

This field defines whether the UE supports multiple uplink SPS and reporting SPS assistance information. A UE indicating *multipleUplinkSPS* shall also support V2X communication via Uu, as defined in TS 36.300 [30].

#### 4.3.19.12 *min-Proc-TimelineSubslot-r15*

This field defines the UE minimum processing timeline supported for subslot operation for the different SPDCCH configurations. The minimum processing timeline is indicated by one of two sets in *ProcessingTimelineSet-r15*. Each set consists of two different processing timeline options and associated maximum TA. The minimum processing timeline to use out of the two options for a given set is configured by *min-proc-TimeTA-SubslotSet1-r15* and *min-procTimeTA-SubslotSet2-r15,* seeTS 36.331 [5]. Support of Set 1 implicitly means support of Set 2.

The sets supported can be different for 1os CRS-based SPDCCH, 2os CRS-based SPDCCH and DMRS-based SPDCCH. The field consists of a sequence of *ProcessingTimelineSet-r15*. The sequence applies to (in order):

1. 1os CRS based SPDCCH

2. 2os CRS based SPDCCH

3. DMRS based SPDCCH

#### 4.3.19.13 *skipSubframeProcessing-r15*

This fields defines whether the UE supports, within a serving cell, aborting reception of PDSCH if the UE receives slot-PDSCH/subslot-PDSCH during an ongoing PDSCH reception and instead starts receiving the slot-PDSCH/subslot-PDSCH, as well as whether the UE supports aborting a PUSCH transmission if the UE gets a grant for a slot-PUSCH/ subslot-PUSCH transmission that overlaps with a grant received for a PUSCH transmission. The capability indicates the number of subframes that the UE may drop prior to the subframe in which it prioritizes the processing of slot/subslot PDSCH/PUSCH. Separate capability for UL and DL and per sTTI length in each direction.

#### 4.3.19.14 *earlyContentionResolution-r14*

This field defines whether the UE supports MAC PDU that contains only the UE Contention Resolution Identity MAC control element but no RRC response message, as specified in TS 36.331 [5]. It is mandatory for UEs that support any *ue-Category-NB* of this release of the specification.

#### 4.3.19.15 *sr-SPS-BSR-r15*

This field defines whether the UE supports SR with SPS BSR, as defined in TS 36.321 [4]. This feature is only applicable if the UE supports any *ue-Category-NB*.

#### 4.3.19.16 *dormantSCellState-r15*

This field defines whether the UE supports the dormant SCell state, as specified in TS 36.321 [4] and TS 36.331 [5].

#### 4.3.19.17 *directSCellActivation-r15*

This field defines whether the UE supports having an SCell configured in activated SCell state in the *RRCConnectionReconfiguration* message, as defined in TS 36.321 [4] and TS 36.331 [5].

#### 4.3.19.18 *directSCellHibernation-r15*

This field defines whether the UE supports having an SCell configured in dormant SCell state, as defined in TS 36.321 [4] and TS 36.331 [5]. A UE that indicates support for this shall also indicate support for *dormantSCellState-r15*.

#### 4.3.19.19 *sps-ServingCell-r15*

This field indicates whether the UE supports multiple UL/DL SPS configurations simultaneously active on different serving cells as specified in TS 36.321 [4].

#### 4.3.19.20 *extendedLCID-Duplication-r15*

This field indicates whether the UE supports use of extended LCIDs 32-38 for PDCP duplication. A UE that supports *extendedLCID-Duplication-r15* shall also support the extended LCID as specified in TS 36.321 [4].

#### 4.3.19.21 *eLCID-Support-r15*

This field indicates whether the UE supports LCID "10000" and MAC PDU subheader containing the eLCID field as specified in TS 36.321 [4].

#### 4.3.19.22 *rai-SupportEnh-r16*

This field defines whether the UE supports 2 bit Release Assistance Indication (RAI) when connected to EPC as specified in TS 36.321 [4]. This feature is only applicable if the UE supports *ce-ModeA-r13* or if the UE supports any *ue-Category-NB*.

Note: In CR0313R1 " Clarification on Pcell support " for TS 36.306 v12.7.0 of RP-152053 which was approved by RAN #70 wrong CR number, 1313 used in CR coversheet due to a misallocation

4.3.19.x1 *directMCG-SCellActivationResume-r16*

This field defines whether the UE supports having an E-UTRA MCG SCell configured in activated SCell state in the *RRCConnectionResume* message, as defined in TS 36.321 [4] and TS 36.331 [5];

If the UE indicates support of *directMCG-SCellActivationResume-r16*, the UE shall also indicate support of *resumeWithMCG-SCellConfig-r16*.

4.3.19.x2 *directSCG-SCellActivationResume-r16*

This field defines whether the UE supports having an E-UTRA SCG SCell configured in activated SCell state in the *RRCConnectionReconfiguration* message contained in the *RRCResume* message, as defined in TS 36.321 [4], TS 36.331 [5] and TS 38.331 [35].

If the UE indicates support of *directSCG-SCellActivationResume-r16*, the UE shall also indicate support of *ne-dc* and *resumeWithSCG-Config-r16* as specified in TS 38.331 [35].