**3GPP TSG-RAN WG2 Meeting #131 R2-2506343**

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

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.306** | **CR** | **1916** | **rev** | **1** | **Current version:** | **18.5.0** |  |
|  | | | | | | | | |
| *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 CAS muting in LTE-based 5G broadcast [5GB\_CASMuting] | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Huawei, HiSilicon, Qualcomm Incorporated, EBU | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | TEI19 | | | | |  | ***Date:*** | | | 2025-09-05 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | RAN1 has finished the TEI19 topic of 5GB\_CASMuting and agreed to introduce an optional capability with signalling. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Capture the following UE capability in 36.306:   * cas-Muting-5GB-r19 | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | 5GB\_CAS Muting is not supported. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 4.3.17.x (new) | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **X** |  | Other core specifications | | | | TS 36.331 CR 5139  TS 36.211 CR 0577 | | |
| ***affected:*** | |  | **X** | Test specifications | | | |  | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | |  | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

# <<Start of the change>>

### 4.3.17 MBMS parameters

#### 4.3.17.1 *mbms-SCell-r11*

This parameter defines whether the UE in RRC\_CONNECTED supports MBMS reception via MBSFN on a frequency indicated in an *MBMSInterestIndication* message, when an SCell is configured on that frequency (regardless of whether the SCell is activated or deactivated), as specified in TS 36.331 [5].

#### 4.3.17.2 *mbms-NonServingCell-r11*

This parameter defines whether the UE in RRC\_CONNECTED supports MBMS reception via MBSFN on a frequency indicated in an *MBMSInterestIndication* message, where (according to *supportedBandCombination* and to network synchronization properties) a serving cell may be additionally configured, as specified in TS 36.331 [5]. If this is supported, the UE shall also support MBMS reception via MBSFN on a frequency when an SCell is configured on that frequency (regardless of whether the SCell is activated or deactivated), as specified in TS 36.331 [5].

#### 4.3.17.3 *mbms-AsyncDC-r12*

This parameter defines whether the UE in RRC\_CONNECTED supports MBMS reception via MBSFN on a frequency indicated in an *MBMSInterestIndication* message, where according to *supportedBandCombination*, the carriers are configured or can be configured as serving cells in the MCG and the SCG which are not synchronized, specified in TS 36.331 [5]. In this release of specification, it is mandatory to support this according to *MBMSInterestIndication* and indicated *supportedBandCombination*.

#### 4.3.17.4 *fembmsMixedCell-r14*

This parameter defines whether the UE in RRC\_CONNECTED supports MBMS reception with 15kHz subcarrier spacings via MBSFN from FeMBMS/Unicast mixed cells on a frequency indicated in an *MBMSInterestIndication* message.

#### 4.3.17.5 *fembmsDedicatedCell-r14*

This parameter defines whether the UE in RRC\_CONNECTED supports MBMS reception with 15kHz subcarrier spacings via MBSFN from MBMS-dedicated cells on a frequency indicated in an *MBMSInterestIndication* message.

#### 4.3.17.6 *subcarrierSpacingMBMS-khz1dot25-r14, subcarrierSpacingMBMS-khz7dot5-r14*

This parameter defines the supported subcarrier spacing for MBSFN subframes on FeMBMS/Unicast mixed cells or MBMS-Dedicated cells in addition to 15kHz subcarrier spacing. The *subcarrierSpacingMBMS-khz7dot5-r14* refers to 7.5kHz subcarrier spacing and *subcarrierSpacingMBMS-khz1dot25-r14* refers to 1.25 kHz subcarrier spacing as defined in TS 36.211 [21], clause 6.12. This field is included only if UE supports MBMS reception from FeMBMS/Unicast mixed cell or MBMS-dedicated cell.

#### 4.3.17.6a *subcarrierSpacingMBMS-khz0dot37-r16, subcarrierSpacingMBMS-khz2dot5-r16*

This parameter defines for each supported E-UTRA band the supported subcarrier spacing for MBSFN subframes on FeMBMS/Unicast mixed cells or MBMS-Dedicated cells in addition to 15kHz subcarrier spacing. The *subcarrierSpacingMBMS-khz0dot37-r16* refers to 0.37 kHz subcarrier spacing and *subcarrierSpacingMBMS-khz2dot5-r16* refers to 2.5 kHz subcarrier spacing as defined in TS 36.211 [21], clause 6.12. This field is included only if UE supports MBMS reception from FeMBMS/Unicast mixed cell or MBMS-dedicated cell for the supported E-UTRA band.

#### 4.3.17.7 *mbms-MaxBW-r14*

This parameter defines the maximum supported bandwidth (T) for MBMS reception, see TS 36.213 [22], clause 11.1. If the value is set to *implicitValue*, the corresponding value of T is calculated as specified in TS 36.213 [22], clause 11.1. If the value is set to *explicitValue*, the actual value of T = *explicitValue* \* 40 MHz.

#### 4.3.17.8 *mbms-ScalingFactor1dot25-r14*, *mbms-ScalingFactor7dot5-r14*

These parameters correspond to A(1.25 and A(7.5, respectively, i.e., scaling factor for processing one unit of bandwidth corresponding to subcarrier spacing of 1.25 kHz and 7.5 kHz, with respect to one unit of bandwidth corresponding to subcarrier spacing of 15 kHz. See TS 36.213 [22], clause 11.1. The field is included only if UE supports corresponding subcarrier spacing for MBSFN subframes on FeMBMS/Unicast mixed cells or MBMS-Dedicated cells in addition to 15kHz subcarrier spacing. The field shall be included if the UE supports corresponding subcarrier spacing for MBSFN subframes on FeMBMS/Unicast mixed cells or MBMS-Dedicated cells in addition to 15kHz subcarrier spacing and *mbms-MaxBW-r14* is included.

#### 4.3.17.9 *mbms-ScalingFactor0dot37-r16, mbms-ScalingFactor2dot5-r16*

These parameters correspond to A(0.37 / A(2..5, i.e., scaling factor for processing one unit of bandwidth corresponding to subcarrier spacing of 0.37 kHz / 2.5 kHz, with respect to one unit of bandwidth corresponding to subcarrier spacing of 15 kHz. See TS 36.213 [22], clause 11.1. This field is included only if UE supports MBMS reception from FeMBMS/Unicast mixed cell or MBMS-dedicated cell. This field shall be included if *subcarrierSpacingMBMS-khz0dot37-r16 / subcarrierSpacingMBMS-khz2dot5-r16* is included for at least one supported E-UTRA band.

#### 4.3.17.10 *timeSeparationSlot2-r16, timeSeparationSlot4-r16*

These parameters define for each supported E-UTRA band the supported time staggering length of 2 slots (MBSFN reference signal pattern type 2) / 4 slots (MBSFN reference signal pattern type 1) for MBSFN-RS associated with PMCH with subcarrier spacing of 0.37 kHz for MBSFN subframes as described in TS 36.211 [17], clause 6.10.2.2.4. This field is included only if UE supports subcarrier spacing of 0.37 kHz for MBSFN subframes on FeMBMS/Unicast mixed cells or MBMS-Dedicated cells in addition to 15kHz subcarrier spacing.

#### 4.3.17.11 *pmch-Bandwidth-n40-r17, pmch-Bandwidth-n35-r17, pmch-Bandwidth-n30-r17*

This parameter defines, for the corresponding E-UTRA band, whether the UE in RRC\_CONNECTED supports MBMS reception via MBSFN from MBMS-dedicated cells in an MBSFN area with PMCH bandwidth of 40/ 35/ 30 PRBs as described in TS 36.331 [5], TS 36.211 [17] and TS 36.213 [22].

#### 4.3.17.x *cas-Muting-5GB-r19*

This parameter defines, for the corresponding E-UTRA band, whether the UE supports reception of LTE-based 5G broadcast with CAS muting from an MBMS-dedicated cell as described in TS 36.331 [5] and TS 36.211 [17].

A UE that supports this feature shall also support *fembmsDedicatedCell-r14*.

<<End of the change>>