**3GPP TSG-RAN WG2 Meeting #109-e *Draft3\_*R2-2001786**

**24 February – 06 March 2020**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **36.306** | **CR** | **1731** | **rev** | **1** | **Current version:** | **15.7.0** |  |
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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:*** | Introduction of Rel-16 additional enhancements NB-IoT in TS 36.306 | | | | | | | | | |
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| ***Source to WG:*** | BlackBerry | | | | | | | | | |
| ***Source to TSG:*** | R2 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NB-IOTenh3-Core, LTE\_eMTC5-Core | | | | |  | ***Date:*** | | | 2020-02-11 |
|  |  | | | |  | |  | | |  |
| ***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:*** | | This CR captures the agreements for NB-IoT Rel-16. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | The following agreements have been captured in this CR:  Scheduling Multiple DL/UL Transport Blocks: (common with MTC):  *UEs report capability to indicate support of multiple TB scheduling in connected mode (RAN2#104). [Added in 4.3.4.x1].*  *UE capability for multiple TB is indicated separately for uplink and downlink (RAN2#104). [Added in 4.3.4.x2]* Transmission in preconfigured resources (common with MTssC): *PUR configuration can be provided without PUR Configuration Request from the UE, therefore optional radio access capabilities (separate for UP and CP) to indicate UE is capable of performing UL transmissions using PUR are introduced (RAN2#107bis). [Added in 4.3.8.z1 and 4.3.8.z2].*  Network management tool enhancement:  *ANR reporting is optional for NB-IoT UEs with capability signalling (RAN2#107). [Added in 4.3.12.p1].*  Improved multi-carrier operation:  *UE capability signalling for quality reporting in connected mode is defined (RAN2#107). [Added in 4.3.6.y1].*  *Support of DL channel quality in MSG3 for non-anchor carrier is optional without capability reporting and is a separate capability from support of DL channel quality in MSG3 for the anchor carrier (RAN2#107). [Added in 6.8.s3].*  *Support of idle mode RRM measurements on non-anchor paging carriers is optional at the UE without capability reporting (RAN2#107bis).**[Added in 6.17.t1].*  Mobile Terminated Early Data Transmission (common with MTC):  *If the UE supports MT-EDT (optional) for the CP solution, it shall also support MO-EDT for the CP solution.*  *If the UE supports MT-EDT (optional) for the UP solution, it shall also support MO-EDT for the UP solution.*  *Support of MT-EDT is optional at the UE without AS capability (RAN2#108). [Added in 6.8.s1 and 6.8.s2].*  Connection to 5GC (common with MTC):  *Introduce a new UE capability earlyData-UP-5GC-r16 in UE-EUTRA-Capability, UE-Capability-NB to indicate support of UP MO-EDT in 5GC (RAN2#107). [Added in 4.3.36.r1].*  *For EPS it is optional for a UE to support AS RAI, with capability reporting (RAN2#108).**[Added in 4.3.19.q1].*  *Support of User Plane CIoT 5GS optimization is optional for both eMTC and NB-IoT devices connected to 5GC without capability signaling. Indication for support is provided in Msg5, i.e. RRCConnectionSetupComplete. [Added in 6.xy.a].* | | | | | | | | |
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| ***Consequences if not approved:*** | | WI cannot be completed. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 2, 3.3, 4, 4.3.4.x1 (new), 4.3.4.x2 (new), 4.3.6.y1 (new), 4.3.8.z1 (new), 4.3.8.z2 (new), 4.3.12.p1 (new), 4.3.19.q1 (new), 4.3.36.r1, 6.8.4, 6.8.s1 (new), 6.8.s2 (new), 6.7.u1 (new), 6.17.t1 (new), 6.xy (new), 6.xy.a (new). | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | | **x** |  | Other core specifications | | | | TS/TR 36.331 CR 4192R1 | | |
| ***affected:*** | |  |  | Test specifications | | | | TS/TR 36.304 CR 0783R1 | | |
| ***(show related CRs)*** | |  |  | O&M Specifications | | | | TS/TR 36.321 CR 1466R1... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | Because 4.3.4.x1, 4.3.4.x2, 4.3.6.y1, 4.3.8.z1, 4.3.8.z2, 4.3.19.q1, 6.8.s1, 6.8.s2, 6.8.s3, 6.17.t1 and 6.xy.a need to apply to Rel-16 NB-IoT and Rel-16 eMTC, the WI Code of Rel-16 eMTC has been added on the coversheet (it is not possible to separate the changes if capturing the earlier agreements). | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

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| First change |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[2] 3GPP TS 36.323: "Evolved Universal Terrestrial Radio Access (E-UTRA) Packet Data Convergence Protocol (PDCP) specification".

[3] 3GPP TS 36.322: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Link Control (RLC) specification".

[4] 3GPP TS 36.321: "Evolved Universal Terrestrial Radio Access (E-UTRA) Medium Access Control (MAC) specification".

[5] 3GPP TS 36.331: "Evolved Universal Terrestrial Radio Access (E-UTRA) Radio Resource Control (RRC) specification".

[6] 3GPP TS 36.101: "Evolved Universal Terrestrial Radio Access (E-UTRA) radio transmission and reception".

[7] IETF RFC 5795: "The RObust Header Compression (ROHC) Framework".

[8] IETF RFC 6846: "RObust Header Compression (ROHC): A Profile for TCP/IP (ROHC-TCP)".

[9] IETF RFC 3095: "RObust Header Compression (RoHC): Framework and four profiles: RTP, UDP, ESP and uncompressed".

[10] IETF RFC 3843: "RObust Header Compression (RoHC): A Compression Profile for IP".

[11] IETF RFC 4815: "RObust Header Compression (ROHC): Corrections and Clarifications to RFC 3095".

[12] IETF RFC 5225: "RObust Header Compression (ROHC) Version 2: Profiles for RTP, UDP, IP, ESP and UDP Lite".

[13] 3GPP TS 36.355: "Evolved Universal Terrestrial Radio Access (E-UTRA) LTE Positioning Protocol (LPP)".

[14] 3GPP TS 36.304: "Evolved Universal Terrestrial Radio Access (E-UTRA); UE Procedures in Idle Mode".

[15] 3GPP TS 37.320: "Universal Terrestrial Radio Access (UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRA); Radio measurement collection for Minimization of Drive Tests (MDT); Overall description; Stage 2".

[16] 3GPP TS 36.133: "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements for support of radio resource management".

[17] 3GPP TS 36.211: "Evolved Universal Terrestrial Radio Access (E-UTRA); Physical Channels and Modulation".

[18] 3GPP TS 23.401: "General Packet Radio Service (GPRS) enhancements for Evolved Universal Terrestrial Radio Access Network (E-UTRAN) access".

[19] 3GPP TS 23.216: "Single Radio Voice Call Continuity (SRVCC)".

[20] 3GPP TS 25.307: "Requirement on User Equipments (UEs) supporting a release-independent frequency band".

[21] 3GPP TS 24.312: "Access Network Discovery and Selection Function (ANDSF) Management Object (MO)".

[22] 3GPP TS 36.213: "Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer procedures".

[23] 3GPP TS 36.214: "Evolved Universal Terrestrial Radio Access (E-UTRA); Physical layer - Measurements".

[24] 3GPP TS 23.303: "Proximity-based services (ProSe); Stage 2".

[25] 3GPP TS 36.314: "Evolved Universal Terrestrial Radio Access (E-UTRA); Layer 2- Measurements".

[26] 3GPP TS 36.212: "Evolved Universal Terrestrial Radio Access (E-UTRA); Multiplexing and channel coding".

[27] 3GPP TS 36.307: "Evolved Universal Terrestrial Radio Access (E-UTRA); Requirements on User Equipments (UEs) supporting a release-independent frequency band".

[28] 3GPP TS 24.301: "Non-Access-Stratum (NAS) protocol for Evolved Packet System (EPS); Stage 3".

[29] 3GPP TS 23.285: "Technical Specification Group Services and System Aspects; Architecture enhancements for V2X services".

[30] 3GPP TS 36.300: "Evolved Universal Terrestrial Radio Access (E-UTRA) and Evolved Universal Terrestrial Radio Access (E-UTRAN); Overall description; Stage 2".

[31] 3GPP TS 23.246: "Multimedia Broadcast/Multicast Service (MBMS); Architecture and functional description".

[32] 3GPP TS 38.306 "NR; UE Radio Access Capabilities".

[33] 3GPP TS 38.101-1: "NR User Equipment (UE) radio transmission and reception Part 1: Range 1 Standalone".

[34] 3GPP TS 38.101-2: "NR User Equipment (UE) radio transmission and reception Part 2: Range 2 Standalone".

[35] 3GPP TS 38.331: "NR; Radio Resource Control (RRC) protocol specification".

[36] 3GPP TS 38.215: "NR; Physical layer measurements".

[37] 3GPP TS 38.133: "NR; Requirements for support of radio resource management".

[38] 3GPP TS 37.340: "Evolved Universal Terrestrial Radio Access (E-UTRA) and NR; Multi-connectivity".

[xx] 3GPP TS 24.501: "Non-Access-Stratum (NAS) protocol for 5G System (5GS); Stage 3".

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| Next changes |

## 3.3 Abbreviations

For the purposes of the present document, the abbreviations given in TR 21.905 [1] and the following apply. An abbreviation defined in the present document takes precedence over the definition of the same abbreviation, if any, in TR 21.905 [1].

1xRTT CDMA2000 1x Radio Transmission Technology

ACK Acknowledgement

ACDC Application specific Congestion control for Data Communication

ANDSF Access Network Discovery and Selection Function

ANR Automatic Neighbour Relation

BCCH Broadcast Control Channel

CG Cell Group

CRS Cell-specific Rerefence Signal

CSG Closed Subscriber Group

CSI Channel State Information

DC Dual Connectivity

DCI Downlink Control Information

DL-SCH Downlink Shared Channel

E-UTRA Evolved Universal Terrestrial Radio Access

E-UTRAN Evolved Universal Terrestrial Radio Access Network

FDD Frequency Division Duplex

GERAN GSM/EDGE Radio Access Network

HARQ Hybrid Automatic Repeat Request

HRPD High Rate Packet Data

IRC Interference Rejection Combining

MAC Medium Access Control

MMSE Minimum Mean Squared Error

MO-EDT Mobile Originated Early Data Transmission

MRO Mobility Robustness Optimisation

MT-EDT Mobile Terminated Early Data Transmission

MTSI Multimedia Telephony Service for IMS

MUST MultiUser Superposition Transmission

NAICS Network Assisted Interference Cancellation/Suppression

NB-IoT Narrow Band Internet of Things

OS OFDM Symbol

PCell Primary Cell

PDCCH Physical Downlink Control Channel

PDCP Packet Data Convergence Protocol

PDSCH Physical Downlink Shared Channel

PHR Power Headroom Reporting

ProSe Proximity-based Services

PUCCH Physical Uplink Control Channel

PUR Preconfigured Uplink Resource

PUSCH Physical Uplink Shared Channel

QoE Quality of Experience

RACH Random Access CHannel

RAI Release Assistance Indication

RAT Radio Access Technology

RLC Radio Link Control

ROHC RObust Header Compression

RRC Radio Resource Control

SC-PTM Single Cell Point to Multipoint

SCC Secondary Component Carrier

SCell Secondary Cell

SI System Information

SL Sidelink

SL-DCH Sidelink Discovery CHannel

SL-SCH Sidelink Shared CHannel

SON Self Organizing Networks

SPT Short Processing Time

SR Scheduling Request

SSAC Service Specific Access Control

SSTD SFN and Subframe Timing Difference

STTI Short TTI

TDD Time Division Duplex

TTI Transmission Time Interval

UCI Uplink Control Information

UDC Uplink Data Compression

UE User Equipment

UL-SCH Uplink Shared Channel

UMTS Universal Mobile Telecommunications System

UTRA UMTS Terrestrial Radio Access

V2X Vehicle-to-Everything

WLAN Wireless Local Area Network

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| Next changes |

# 4 UE radio access capability parameters

The following clauses define the UE radio access capability parameters and minimum capabilities for MBMS capable UE. Only parameters for which there is the possibility for UEs to signal different values are considered as UE radio access capability parameters. Therefore, mandatory features without capability parameters that are the same for all UEs are not listed here. Also capabilities which are optional or conditionally mandatory for UEs to implement but do not have UE radio access capability parameter are listed in this specification.

E-UTRAN needs to respect the signalled UE radio access capability parameters when configuring the UE and when scheduling the UE.

All parameters shown in italics are signalled and correspond to a field defined in TS 36.331 [5].

For optional features, the UE radio access capability parameter indicates whether the feature has been implemented and successfully tested. For mandatory features with the UE radio access capability parameter, the parameter indicates whether the feature has been successfully tested.

The mandatory features required to be supported by a UE are the same for all UE categories unless explicitly specified elsewhere in the specifications.

Unless otherwise stated, the requirements on the maximum number of transport block bits are applicable for a TTI length of 1 ms. For other TTI lengths, the requirements shall be scaled according to clause 7.1.7 in TS 36.213 [22] in order to get the corresponding requirement.

The following UE radio access capability parameters specified in Chapter 4 are applicable in NB-IoT:

- *ue-Category-NB* in NB-IoT (clause 4.1C)

- *supportedROHC-Profiles-r13* (clause 4.3.1.1A)

- *maxNumberROHC-ContextSessions-r13* (clause 4.3.1.2A)

- *rlc-UM-r15 (*clause *4.3.2.5)*

- *multiTone-r13* (clause 4.3.4.55)

- *multiCarrier-r13* (clause 4.3.4.56)

- *twoHARQ-Processes-r14* (clause 4.3.4.62)

- *multiCarrier-NPRACH-r14* (clause 4.3.4.75)

- *multiCarrierPaging-r14* (clause 4.3.4.76)

- *interferenceRandomisation-r14* (clause 4.3.4.80)

- *wakeUpSignal-r15* (clause 4.3.4.113)

- *wakeUpSignalMinGap-eDRX-r15* (clause 4.3.4.114)

- *mixedOperationMode-r15* (clause 4.3.4.115)

- *sr-WithHARQ-ACK-r15* (clause 4.3.4.117)

- *sr-WithoutHARQ-ACK-r15* (clause 4.3.4.118)

- *nprach-Format2-r15* (clause 4.3.4.119)

- *multiCarrierPagingTDD-r15* (clause 4.3.4.134)

- *additionalTransmissionSIB1-r15* (clause 4.3.4.137)

- *npusch-3dot75kHz-SCS-TDD-r15* (clause 4.3.4.177)

- *multiTB-UL-r16* (clause 4.3.4.x1)

- *multiTB-DL-r16* (clause 4.3.4.x2)

- *supportedBandList-r13* (clause 4.3.5.1A)

- *multiNS-Pmax-r13* (clause 4.3.5.16A)

- *powerClassNB-20dBm-r13* (clause 4.3.5.1A.1)

- *powerClassNB-14dBm-r14* (clause 4.3.5.1A.2)

- *dl*-*ChannelQualityReporting-r16* (clause 4.3.6.y1)

- *accessStratumRelease-r13* (clause 4.3.8.1A)

- *multipleDRB-r13* (clause 4.3.8.5)

- *earlyData-UP-r15* (clause 4.3.8.7)

- *pur-CP-r16* (clause 4.3.8.z1)

- *pur-UP-r16* (clause 4.3.8.z2)

- *anr-Report-r16* (clause 4.3.12.p1)

- *logicalChannelSR-ProhibitTimer* (clause 4.3.19.2)

- *dataInactMon-r14* (clause 4.3.19.9)

- *rai-Support-r14* (clause 4.3.19.10)

- *earlyContentionResolution-r14* (clause 4.3.19.14)

- *sr-SPS-BSR-r15* (clause 4.3.19.15)

- *rai-r16* (clause 4.3.19.q1)

- *earlyData-UP-5GC-r16* (clause 4.3.36.r1)

The UE radio access capabilities specified in Chapter 4 are not applicable in NB-IoT, unless they are listed above.

The following optional features without UE radio access capability parameters specified in Chapter 6 are applicable in NB-IoT:

- RRC Connection Re-establishment for the Control Plane CIoT EPS Optimization (clause 6.7.5)

- DL channel quality reporting in MSG3 for non-anchor carrier (clause 6.7.u1)

- System Information Block Type 16 (clause 6.8.1)

- Enhanced random access power control (clause 6.8.3)

- EDT for Control Plane CIoT EPS Optimization (clause 6.8.4)

- Enhanced PHR (clause 6.8.6)- MT-EDT for Control Plane CIoT EPS Optimisation (clause 6.8.s1)- MT-EDT for User Plane CIoT EPS Optimisation (clause 6.8.s2)

- SC-PTM in Idle mode (clause 6.16.1)

- Relaxed monitoring (clause 6.17.1)

- DL channel quality reporting (clause 6.17.2)

- Serving cell idle mode measurements reporting (clause 6.17.3)

- NSSS-Based RRM measurements (clause 6.17.4)

- NPBCH-Based RRM measurements (clause 6.17.5)

- RRM measurements on non-anchor paging carriers (clause 6.17.t1)

- User Plane CIoT 5GS optimisations (clause 6.xy.a)

The optional features without UE radio access capability parameters specified in Chapter 6 are not applicable in NB-IoT, unless they are listed above.

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| Next changes |

#### 4.3.4.x1 *multiTB-UL-r16*

This field indicates whether the UE supports multiple TB scheduling in the uplink as specified in TS 36.213 [22]. This feature is only applicable if the UE supports any *ue-Category-NB*.

#### 4.3.4.x2 *multiTB-DL-r16*

This field indicates whether the UE supports multiple TB scheduling in the downlink as specified in TS 36.213 [22]. This feature is only applicable if the UE supports any *ue-Category-NB*.

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| Next changes |

#### 4.3.6.y1 *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.

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| Next changes |

#### 4.3.8.7 *earlyData-UP-r15*

This field defines whether the UE supports MO-EDT for User Plane CIoT EPS optimizations for FDD, as defined in TS 24.301 [28]. This feature is only applicable if the UE supports *ce-ModeA-r13* or if the UE supports any *ue-Category-NB*.

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| Next changes |

#### 4.3.8.z1 *pur-CP-r16*

This field indicates whether the UE supports Transmission using PUR for Control Plane CIoT EPS optimisation, as defined in TS 36.300 [30]. This feature is only applicable if the UE supports *ce-ModeA-r13,* or for FDD if the UE supports any *ue-Category-NB*.

#### 4.3.8.z2 *pur-UP-r16*

This field indicates whether the UE supports Transmission using PUR for User Plane CIoT EPS optimisation for FDD, as defined in TS 36.300 [30]. This feature is only applicable if the UE supports *ce-ModeA-r13,* or for FDD if the UE supports any *ue-Category-NB*.

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| Next changes |

#### 4.3.12.p1 *anr-Report-r16*

This field defines whether the UE supports ANR measurement configuration and reporting in RRC\_IDLE as specified in TS 36.304 [14] and TS 36.331 [5]. This feature is only applicable if the UE supports any *ue-Category-NB*.

Editor’s note: FFS if this feature is supported in FDD and TDD.

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| Next extract for information (no change) |

#### 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*.

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| Next changes |

#### 4.3.19.q1 *rai-Support-2bit-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*.

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| Next changes |

#### 4.3.36.r1 *earlyData-UP-5GC-r16*

This field indicates whether the UE supports MO-EDT for User Plane CIoT 5GS optimisations for FDD, as defined in TS 24.501 [xx]. This feature is only applicable if the UE supports *ce-ModeA-r13,* or for FDD if the UE supports any *ue-Category-NB*.

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| Next changes |

### 6.7.u1 DL channel quality reporting in MSG3 for non-anchor carrier

It is optional for UE to support DL channel quality reporting for a non-anchor carrier for FDD in MSG3, as defined in TS 36.331 [5]. This feature is only applicable if the UE supports any *ue-Category-NB.*

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| Next changes |

### 6.8.4 MO-EDT for Control Plane CIoT EPS Optimization

It is optional for UE to support MO-EDT for Control Plane CIoT EPS optimizations for FDD, as defined in TS 24.301 [28]. This feature is only applicable if the UE supports *ce-ModeA-r13* or if the UE supports any *ue-Category-NB*.

Editor’s note: FFS if we should have the equivalent for 5GS in section 6.xy.

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| Next changes |

### 6.8.s1 MT-EDT for Control Plane CIoT EPS Optimisation

It is optional for UE to support MT-EDT for Control Plane CIoT EPS Optimisation, as defined in TS 24.301 [28]. If the UE supports ‘MT-EDT for Control Plane CIoT EPS optimisation’ it shall support ‘MO-EDT for Control Plane CIoT EPS Optimisation’ as described in clause 6.8.4. This feature is only applicable if the UE supports *ce-ModeA-r13* or if the UE supports any *ue-Category-NB*.

Editor’s note: The referenced feature in 6.8.4 applies to FDD. FFS how should this be handled if the feature in the present clause applies to TDD.

### 6.8.s2 MT-EDT for User Plane CIoT EPS Optimisation

It is optional for UE to support MT-EDT for User Plane CIoT EPS Optimisation, as defined in TS 24.301 [28]. If the UE supports ‘MT-EDT for User Plane CIoT EPS Optimisation, it shall support *earlyData-UP-r15* as described in clause 4.3.8.7. This feature is only applicable if the UE supports *ce-ModeA-r13* or if the UE supports any *ue-Category-NB*.

Editor’s note: The referenced feature in 4.3.8.7 applies to FDD. FFS how should this be handled if the feature in the present clause applies to TDD.

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| Next changes |

### 6.17.t1 RRM measurements on non-anchor paging carriers

It is optional for UE to support idle mode RRM measurements on non-anchor paging carriers, as defined in TS 36.133 [6]. This feature is only applicable if the UE supports any *ue-Category-NB*.

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| Next changes |

## 6.xy E-UTRA/5GC Parameters

### 6.xy.a User Plane CIoT 5GS optimisations

It is optional for UE to support User Plane CIoT 5GS optimisations for FDD, as defined in TS 24.501 [xx]. This feature is only applicable if the UE supports any *ue-Category-NB* or if the UE supports *ce-ModeA-r13*.

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| End of changes |