

# ETSI TS 136 306 V15.10.0 (2021-01)



**LTE;**  
**Evolved Universal Terrestrial Radio Access (E-UTRA);**  
**User Equipment (UE) radio access capabilities**  
**(3GPP TS 36.306 version 15.10.0 Release 15)**

<https://standards.iteh.ai/catalog/standards/sist/722b9258-b25f-483d-a7c2-e900f2d8b3b4/etsi-ts-136-306-v15-10-0-2021-01>



---

**Reference**RTS/TSGR-0236306vfa0

---

**Keywords**LTE

---

**ETSI**

650 Route des Lucioles  
F-06921 Sophia Antipolis Cedex - FRANCE

---

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

**Important notice**

**ETSI TS 136 306 V15.10.0 (2021-01)**  
<https://standards.iteh.ai/catalog/standards/sist/722b9258-b25f-483d-a7c2-e9604d8b3ba4/sist-136-306-v15-10-0-2021-01>  
The present document can be downloaded from:  
<http://www.etsi.org/standards-search>

The present document may be made available in electronic versions and/or in print. The content of any electronic and/or print versions of the present document shall not be modified without the prior written authorization of ETSI. In case of any existing or perceived difference in contents between such versions and/or in print, the prevailing version of an ETSI deliverable is the one made publicly available in PDF format at [www.etsi.org/deliver](http://www.etsi.org/deliver).

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at <https://portal.etsi.org/TB/ETSIDeliverableStatus.aspx>

If you find errors in the present document, please send your comment to one of the following services:  
<https://portal.etsi.org/People/CommiteeSupportStaff.aspx>

---

**Copyright Notification**

---

No part may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm except as authorized by written permission of ETSI.

The content of the PDF version shall not be modified without the written authorization of ETSI.

The copyright and the foregoing restriction extend to reproduction in all media.

© ETSI 2021.  
All rights reserved.

**DECT™**, **PLUGTESTS™**, **UMTS™** and the ETSI logo are trademarks of ETSI registered for the benefit of its Members. **3GPP™** and **LTE™** are trademarks of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

**oneM2M™** logo is a trademark of ETSI registered for the benefit of its Members and of the oneM2M Partners.

**GSM®** and the GSM logo are trademarks registered and owned by the GSM Association.

---

# Intellectual Property Rights

## Essential patents

IPRs essential or potentially essential to normative deliverables may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<https://ipr.etsi.org/>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

## Trademarks

The present document may include trademarks and/or tradenames which are asserted and/or registered by their owners. ETSI claims no ownership of these except for any which are indicated as being the property of ETSI, and conveys no right to use or reproduce any trademark and/or tradename. Mention of those trademarks in the present document does not constitute an endorsement by ETSI of products, services or organizations associated with those trademarks.

---

# Legal Notice

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities. These shall be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

<https://standards.iteh.ai/catalog/standards/sist/722b9258-b25f-483d-a7c2-e900e2d8b3b4/etsi-ts-136-306-v15-10-0-2021-01>

---

# Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

# Contents

Intellectual Property Rights .....	2
Legal Notice .....	2
Modal verbs terminology.....	2
Foreword.....	16
1 Scope .....	17
2 References .....	17
3 Definitions, symbols and abbreviations .....	19
3.1 Definitions .....	19
3.2 Symbols.....	19
3.3 Abbreviations .....	19
4 UE radio access capability parameters .....	20
4.1 <i>ue-Category</i> .....	22
4.1A <i>ue-CategoryDL</i> and <i>ue-CategoryUL</i> .....	25
4.1B <i>ue-CategorySL-C-RX</i> , <i>ue-CategorySL-C-TX</i> and <i>ue-CategorySL-D</i> .....	46
4.1C <i>ue-Category-NB</i> .....	47
4.2 Parameters set by the field <i>ue-Category</i> and <i>ue-CategoryDL / ue-CategoryUL</i> .....	48
4.2.1 Transport channel parameters in downlink.....	48
4.2.1.1 Maximum number of DL-SCH transport block bits received within a TTI .....	48
4.2.1.2 Maximum number of bits of a DL-SCH transport block received within a TTI .....	48
4.2.1.3 Total number of DL-SCH soft channel bits .....	48
4.2.1.4 Maximum number of bits of a MCH transport block received within a TTI .....	49
4.2.2 Transport channel parameters in uplink.....	49
4.2.2.1 Maximum number of bits of an UL-SCH transport block transmitted within a TTI.....	49
4.2.2.2 Maximum number of UL-SCH transport block bits transmitted within a TTI.....	49
4.2.3 Physical channel parameters in downlink (DL).....	49
4.2.3.1 Maximum number of supported layers for spatial multiplexing in DL.....	49
4.2.4 Physical channel parameters in uplink (UL).....	49
4.2.4.1 Support for 64QAM in UL.....	49
4.2.5 Total layer 2 buffer size .....	49
4.2.6 Half-duplex FDD operation type .....	49
4.2.7 RF parameters .....	49
4.2.7.1 Maximum UE channel bandwidth.....	49
4.2A Parameters set by <i>ue-CategorySL-C / ue-CategorySL-D</i> .....	50
4.2A.1 Transport channel parameters in sidelink (SL) .....	50
4.2A.1.1 Maximum number of SL-SCH transport block bits received within a TTI.....	50
4.2A.1.2 Maximum number of bits of a SL-SCH transport block received within a TTI.....	50
4.2A.1.3 Maximum number of SL-DCH transport block bits received within a TTI.....	50
4.2A.1.4 Maximum number of bits of a SL-DCH transport block received within a TTI.....	50
4.2A.1.5 Maximum number of bits of a SL-SCH transport block transmitted within a TTI .....	50
4.2A.1.6 Maximum number of SL-SCH transport block bits transmitted within a TTI .....	50
4.2A.1.7 Maximum number of bits of a SL-DCH transport block transmitted within a TTI.....	50
4.2A.1.8 Maximum number of SL-DCH transport block bits transmitted within a TTI.....	50
4.2A.2 Physical channel parameters in sidelink (SL) .....	50
4.2A.2.1 Maximum number of supported layers for spatial multiplexing in SL-C .....	50
4.2A.2.2 Maximum number of supported layers for spatial multiplexing in SL-D .....	50
4.3 Parameters independent of the field <i>ue-Category</i> and <i>ue-CategoryDL / ue-CategoryUL</i> .....	51
4.3.1 PDCP Parameters.....	51
4.3.1.1 <i>supportedROHC-Profiles</i> .....	51
4.3.1.1A <i>supportedROHC-Profiles-r13</i> .....	51
4.3.1.2 <i>maxNumberROHC-ContextSessions</i> .....	51
4.3.1.2A <i>maxNumberROHC-ContextSessions-r13</i> .....	52
4.3.1.3 <i>pdcp-SN-Extension</i> .....	52
4.3.1.4 <i>supportRohcContextContinue</i> .....	52
4.3.1.5 <i>pdcp-SN-Extension-18bits-r13</i> .....	52

4.3.1.6	<i>supportedUplinkOnlyROHC-Profiles</i> .....	52
4.3.1.7	<i>supportedUDC-r15</i> .....	52
4.3.1.8	<i>supportedStandardDic-r15</i> .....	52
4.3.1.9	<i>supportedOperatorDic-r15</i> .....	52
4.3.1.10	<i>pdcp-Duplication-r15</i> .....	52
4.3.1A	NR PDCP Parameters .....	52
4.3.2	RLC parameters .....	53
4.3.2.1	Void.....	53
4.3.2.2	<i>extended-RLC-LI-Field-r12</i> .....	53
4.3.2.3	<i>extendedRLC-SN-SO-Field-r13</i> .....	53
4.3.2.4	<i>extendedPollByte-r14</i> .....	53
4.3.2.5	<i>rlc-UM-r15</i> .....	53
4.3.2.6	<i>rlc-AM-Ooo-Delivery-r15</i> .....	53
4.3.2.7	<i>rlc-UM-Ooo-Delivery-r15</i> .....	53
4.3.2.8	<i>flexibleUM-AM-Combinations-r15</i> .....	53
4.3.3	Void.....	53
4.3.4	Physical layer parameters .....	53
4.3.4.1	<i>ue-TxAntennaSelectionSupported</i> .....	53
4.3.4.2	<i>ue-SpecificRefSigsSupported</i> .....	53
4.3.4.3	Void.....	54
4.3.4.4	<i>enhancedDualLayerFDD</i> .....	54
4.3.4.5	<i>enhancedDualLayerTDD</i> .....	54
4.3.4.6	<i>supportedMIMO-CapabilityUL-r10</i> .....	54
4.3.4.7	<i>supportedMIMO-CapabilityDL-r10</i> .....	54
4.3.4.8	<i>two-AntennaPortsForPUCCH-r10</i> .....	54
4.3.4.9	<i>tm9-With-8Tx-FDD-r10</i> .....	54
4.3.4.10	<i>pmi-Disabling-r10</i> .....	54
4.3.4.11	<i>crossCarrierScheduling-r10</i> .....	54
4.3.4.12	<i>simultaneousPUCCH-PUSCH-r10</i> .....	54
4.3.4.13	<i>multiClusterPUSCH-WithinCC-r10</i> .....	55
4.3.4.14	<i>nonContiguousUL-RA-WithinCC-Info-r10</i> .....	55
4.3.4.15	<i>crs-InterfHandl-r11</i> .....	55
4.3.4.16	Void.....	55
4.3.4.17	Void.....	55
4.3.4.18	<i>ePDCCH-r11</i> .....	55
4.3.4.19	<i>multiACK-CSI-Reporting-r11</i> .....	55
4.3.4.20	<i>ss-CCH-InterfHandl-r11</i> .....	55
4.3.4.21	<i>tdd-SpecialSubframe-r11</i> .....	55
4.3.4.21A	<i>tdd-SpecialSubframe-r14</i> .....	55
4.3.4.21B	<i>ssp10-TDD-Only-r14</i> .....	56
4.3.4.22	<i>txDiv-PUCCH1b-ChSelect-r11</i> .....	56
4.3.4.23	<i>ul-CoMP-r11</i> .....	56
4.3.4.24	<i>tm5-FDD</i> .....	56
4.3.4.25	<i>tm5-TDD</i> .....	56
4.3.4.26	<i>interBandTDD-CA-WithDifferentConfig-r11</i> .....	56
4.3.4.27	<i>e-HARQ-Pattern-FDD-r12</i> .....	56
4.3.4.28	<i>tdd-FDD-CA-PCellDuplex-r12</i> .....	56
4.3.4.29	<i>csi-SubframeSet-r12</i> .....	56
4.3.4.30	<i>phy-TDD-ReConfig-FDD-PCell-r12</i> .....	56
4.3.4.31	<i>phy-TDD-ReConfig-TDD-PCell-r12</i> .....	57
4.3.4.32	<i>pusch-SRS-PowerControl-SubframeSet-r12</i> .....	57
4.3.4.33	<i>enhanced-4TxCodebook-r12</i> .....	57
4.3.4.34	<i>pusch-FeedbackMode-r12</i> .....	57
4.3.4.35	<i>naics-Capability-List-r12</i> .....	57
4.3.4.36	<i>noResourceRestrictionForTTIBundling-r12</i> .....	57
4.3.4.37	Void.....	57
4.3.4.38	<i>discoverySignalsInDeactSCell-r12</i> .....	57
4.3.4.39	<i>ul-64QAM-r12</i> .....	57
4.3.4.40	<i>supportedMIMO-CapabilityDL-r12</i> .....	57
4.3.4.41	<i>alternativeTBS-Indices-r12</i> .....	57
4.3.4.42	<i>codebook-HARQ-ACK-r13</i> .....	58
4.3.4.43	<i>fdd-HARQ-TimingTDD-r13</i> .....	58

4.3.4.44	<i>maxNumberUpdatedCSI-Proc-r13</i> .....	58
4.3.4.45	<i>pucch-Format4-r13</i> .....	58
4.3.4.46	<i>pucch-Format5-r13</i> .....	58
4.3.4.47	<i>pucch-SCell-r13</i> .....	58
4.3.4.48	<i>supportedBlindDecoding-r13</i> .....	58
4.3.4.48.1	<i>maxNumberDecoding-r13</i> .....	58
4.3.4.48.2	<i>pdcch-CandidateReductions-r13</i> .....	58
4.3.4.48.3	<i>skipMonitoringDCI-Format0-1A-r13</i> .....	58
4.3.4.49	<i>crs-InterfMitigationTM10-r13</i> .....	59
4.3.4.49a	<i>crs-InterfMitigationTM1toTM9-r13</i> .....	59
4.3.4.50	<i>pdsch-CollisionHandling-r13</i> .....	59
4.3.4.51	<i>aperiodicCSI-Reporting-r13</i> .....	59
4.3.4.52	<i>crossCarrierScheduling-B5C-r13</i> .....	59
4.3.4.53	<i>spatialBundling-HARQ-ACK-r13</i> .....	59
4.3.4.54	<i>uci-PUSCH-Ext-r13</i> .....	59
4.3.4.55	<i>multiTone-r13</i> .....	60
4.3.4.56	<i>multiCarrier-r13</i> .....	60
4.3.4.57	<i>cch-InterfMitigation-RefRecTypeA-r13</i> .....	60
4.3.4.58	<i>cch-InterfMitigation-RefRecTypeB-r13</i> .....	60
4.3.4.59	<i>cch-InterfMitigation-MaxNumCCs-r13</i> .....	60
4.3.4.60	<i>tdd-TTI-Bundling-r14</i> .....	60
4.3.4.61	<i>dmrs-LessUpPTS-r14</i> .....	60
4.3.4.62	<i>twoHARQ-Processes-r14</i> .....	60
4.3.4.63	<i>ce-PUSCH-NB-MaxTBS-r14</i> .....	60
4.3.4.64	<i>ce-PDSCH-PUSCH-MaxBandwidth-r14</i> .....	61
4.3.4.65	<i>ce-HARQ-AckBundling-r14</i> .....	61
4.3.4.66	<i>ce-PDSCH-TenProcesses-r14</i> .....	61
4.3.4.67	<i>ce-RetuningSymbols-r14</i> .....	61
4.3.4.68	<i>ce-PDSCH-PUSCH-Enhancement-r14</i> .....	61
4.3.4.69	<i>ce-SchedulingEnhancement-r14</i> .....	61
4.3.4.70	<i>ce-SRS-Enhancement-r14</i> .....	61
4.3.4.70A	<i>ce-SRS-EnhancementWithoutComb4-r14</i> .....	61
4.3.4.71	<i>ce-PUSCH-Enhancement-r14</i> .....	61
4.3.4.72	<i>ce-ClosedLoopTxAntennaSelection-r14</i> .....	62
4.3.4.73	<i>ul-256QAM-r14</i> .....	62
4.3.4.73A	<i>ul-256QAM-r15</i> .....	62
4.3.4.74	<i>alternativeTBS-Index-r14</i> .....	62
4.3.4.75	<i>multiCarrier-NPRACH-r14</i> .....	62
4.3.4.76	<i>multiCarrierPaging-r14</i> .....	62
4.3.4.77	<i>ul-256QAM-perCC-InfoListr14</i> .....	62
4.3.4.78	<i>unicast-fembmsMixedSCell-r14</i> .....	62
4.3.4.79	<i>emptyUnicastRegion-r14</i> .....	62
4.3.4.80	<i>interferenceRandomisation-r14</i> .....	62
4.3.4.81	<i>must-CapabilityPerBand-r14</i> .....	63
4.3.4.81.1	<i>must-TM234-UpTo2Tx-r14</i> .....	63
4.3.4.81.2	<i>must-TM89-UpToOneInterferingLayer-r14</i> .....	63
4.3.4.81.3	<i>must-TM10-UpToOneInterferingLayer-r14</i> .....	63
4.3.4.81.4	<i>must-TM89-UpToThreeInterferingLayers-r14</i> .....	63
4.3.4.81.5	<i>must-TM10-UpToThreeInterferingLayers-r14</i> .....	63
4.3.4.82	<i>crs-LessDwPTS-r14</i> .....	63
4.3.4.83	<i>dl-1024QAM-Slot-r15</i> .....	63
4.3.4.84	<i>dl-1024QAM-SubslotTA-1-r15</i> .....	63
4.3.4.85	<i>dl-1024QAM-SubslotTA-2-r15</i> .....	63
4.3.4.86	<i>dmrs-PositionPattern-r15</i> .....	63
4.3.4.87	<i>dmrs-RepetitionSubslotPDSCH-r15</i> .....	63
4.3.4.88	<i>dmrs-SharingSubslotPDSCH-r15</i> .....	64
4.3.4.89	<i>epdcch-SPT-differentCells-r15</i> .....	64
4.3.4.90	<i>epdcch-STTI-differentCells-r15</i> .....	64
4.3.4.91	<i>maxLayersSlotOrSubslotPUSCH-r15</i> .....	64
4.3.4.92	<i>maxNumberUpdatedCSI-Proc-SPT-r15</i> .....	64
4.3.4.93	Void.....	64
4.3.4.94	<i>numberOfBlindDecodesUSS-r15</i> .....	64

4.3.4.95	<i>pdsch-SlotSubslotPDSCH-Decoding-r15</i> .....	64
4.3.4.96	<i>simultaneousTx-differentTx-duration-r15</i> .....	64
4.3.4.97	<i>slotPDSCH-TxDiv-TM8-r15</i> .....	64
4.3.4.98	<i>slotPDSCH-TxDiv-TM9and10-r15</i> .....	64
4.3.4.99	<i>spdcch-differentRS-types-r15</i> .....	64
4.3.4.100	<i>spt-Parameters-r15</i> .....	65
4.3.4.101	<i>sps-CyclicShift-r15</i> .....	65
4.3.4.102	<i>subslotPDSCH-TxDiv-TM9and10-r15</i> .....	65
4.3.4.103	<i>sTTI-SupportedCombinations-r15</i> .....	65
4.3.4.104	Void.....	65
4.3.4.105	<i>sTTI-SPT-BandParameters-r15</i> .....	65
4.3.4.106	<i>sTTI-SupportedCSI-Proc-r15</i> .....	65
4.3.4.107	<i>txDiv-SPUCCH-r15</i> .....	65
4.3.4.108	<i>ul-256QAM-Slot-r15</i> .....	65
4.3.4.109	<i>ul-256QAM-Subslot-r15</i> .....	65
4.3.4.110	<i>ue-TxAntennaSelection-SRS-1T4R-r15</i> .....	66
4.3.4.111	<i>ue-TxAntennaSelection-SRS-2T4R-2Pairs-r15</i> .....	66
4.3.4.112	<i>ue-TxAntennaSelection-SRS-2T4R-3Pairs-r15</i> .....	66
4.3.4.113	<i>wakeUpSignal-r15</i> .....	66
4.3.4.114	<i>wakeUpSignalMinGap-eDRX-r15</i> .....	66
4.3.4.115	<i>mixedOperationMode-r15</i> .....	66
4.3.4.116	void.....	66
4.3.4.117	<i>sr-WithHARQ-ACK-r15</i> .....	66
4.3.4.118	<i>sr-WithoutHARQ-ACK-r15</i> .....	66
4.3.4.119	<i>nprach-Format2-r15</i> .....	66
4.3.4.120	<i>ce-UL-HARQ-ACK-Feedback-r15</i> .....	66
4.3.4.121	<i>ce-PDSCH-FlexibleStartPRB-CE-ModeA-r15</i> .....	67
4.3.4.122	<i>ce-PDSCH-FlexibleStartPRB-CE-ModeB-r15</i> .....	67
4.3.4.123	<i>ce-PUSCH-FlexibleStartPRB-CE-ModeA-r15</i> .....	67
4.3.4.124	<i>ce-PUSCH-FlexibleStartPRB-CE-ModeB-r15</i> .....	67
4.3.4.125	<i>ce-CRS-IntfMitig-r15</i> .....	67
4.3.4.126	<i>ce-PDSCH-64QAM-r15</i> .....	67
4.3.4.127	<i>ce-CQI-AlternativeTable-r15</i> .....	67
4.3.4.128	<i>ce-PUSCH-SubPRB-Allocation-r15</i> .....	67
4.3.4.129	<i>wakeUpSignal-TDD-r15</i> .....	67
4.3.4.130	<i>wakeUpSignalMinGap-eDRX-TDD-r15</i> .....	67
4.3.4.131	<i>shortCqi-ForSCellActivation-r15</i> .....	68
4.3.4.132	<i>crs-IntfMitig-r15</i> .....	68
4.3.4.133	<i>srs-UpPTS-6sym-r14</i> .....	68
4.3.4.134	<i>multiCarrierPagingTDD-r15</i> .....	68
4.3.4.135	<i>altMCS-Table-r15</i> .....	68
4.3.4.136	<i>ul-PowerControlEnhancements-r15</i> .....	68
4.3.4.137	<i>additionalTransmissionSIB1-r15</i> .....	68
4.3.4.138	<i>aperiodicCsi-ReportingSTTI-r15</i> .....	68
4.3.4.139	<i>dmrs-BasedSPDCCH-MBSFN-r15</i> .....	68
4.3.4.140	<i>dmrs-BasedSPDCCH-nonMBSFN-r15</i> .....	68
4.3.4.141	<i>maxNumberUpdatedCSI-Proc-STTI-Comb77-r15</i> .....	68
4.3.4.142	<i>maxNumberUpdatedCSI-Proc-STTI-Comb27-r15</i> .....	69
4.3.4.143	<i>maxNumberUpdatedCSI-Proc-STTI-Comb22-Set1-r15</i> .....	69
4.3.4.144	<i>maxNumberUpdatedCSI-Proc-STTI-Comb22-Set2-r15</i> .....	69
4.3.4.145	<i>powerUCI-SlotPUSCH-r15</i> .....	69
4.3.4.146	<i>powerUCI-SubslotPUSCH-r15</i> .....	69
4.3.4.147	<i>spdcch-Reuse-r15</i> .....	69
4.3.4.148	<i>sps-STTI-r15</i> .....	69
4.3.4.149	<i>sTTI-FD-MIMO-Coexistence-r15</i> .....	69
4.3.4.150	<i>sTTI-SPT-Supported-r15</i> .....	69
4.3.4.151	<i>tm8-slotPDSCH-r15</i> .....	69
4.3.4.152	<i>tm9-slotSubslot-r15</i> .....	69
4.3.4.153	<i>tm9-slotSubslotMBSFN-r15</i> .....	70
4.3.4.154	<i>tm10-slotSubslot-r15</i> .....	70
4.3.4.155	<i>tm10-slotSubslotMBSFN-r15</i> .....	70
4.3.4.156	<i>ul-AsyncHarqSharingDiff-TTI-Lengths-r15</i> .....	70

4.3.4.157	<i>semiStaticCFI-r15</i> .....	70
4.3.4.158	<i>semiStaticCFI-Pattern-r15</i> .....	70
4.3.4.159	<i>pdsch-RepSubframe-r15</i> .....	70
4.3.4.160	<i>pdsch-RepSlot-r15</i> .....	70
4.3.4.161	<i>pdsch-RepSubslot-r15</i> .....	70
4.3.4.162	<i>pusch-SPS-SubframeRepPCell-r15</i> .....	70
4.3.4.163	<i>pusch-SPS-SubframeRepPSCell-r15</i> .....	70
4.3.4.164	<i>pusch-SPS-SubframeRepSCell-r15</i> .....	71
4.3.4.165	<i>pusch-SPS-SlotRepPCell-r15</i> .....	71
4.3.4.166	<i>pusch-SPS-SlotRepPSCell-r15</i> .....	71
4.3.4.167	<i>pusch-SPS-SlotRepSCell-r15</i> .....	71
4.3.4.168	<i>pusch-SPS-SubslotRepPCell-r15</i> .....	71
4.3.4.169	<i>pusch-SPS-SubslotRepPSCell-r15</i> .....	71
4.3.4.170	<i>pusch-SPS-SubslotRepSCell-r15</i> .....	71
4.3.4.171	<i>pusch-SPS-MaxConfigSubframe-r15</i> .....	71
4.3.4.172	<i>pusch-SPS-MultiConfigSubframe-r15</i> .....	71
4.3.4.173	<i>pusch-SPS-MaxConfigSlot-r15</i> .....	71
4.3.4.174	<i>pusch-SPS-MultiConfigSlot-r15</i> .....	72
4.3.4.175	<i>pusch-SPS-MaxConfigSubslot-r15</i> .....	72
4.3.4.176	<i>pusch-SPS-MultiConfigSubslot-r15</i> .....	72
4.3.4.177	<i>npusch-3dot75kHz-SCS-TDD-r15</i> .....	72
4.3.4.178	<i>crs-IM-TM1-toTM9-OneRX-Port</i> .....	72
4.3.4.179	<i>cch-IM-RefRecTypeA-OneRX-Port</i> .....	72
4.3.4.180	<i>dmrs-OverheadReduction-r15</i> .....	72
4.3.4.181	<i>srs-DCI7-TriggeringFS2-r15</i> .....	72
4.3.5	RF parameters .....	73
4.3.5.1	<i>supportedBandListEUTRA</i> .....	73
4.3.5.1.1	<i>ue-PowerClass-N-r13, ue-PowerClass-5-r13</i> .....	73
4.3.5.1.2	<i>intraFreq-CE-NeedForGaps-r13</i> .....	73
4.3.5.1.3	<i>ue-CA-PowerClass-N</i> .....	73
4.3.5.1A	<i>supportedBandList-r13</i> .....	73
4.3.5.1A.1	<i>powerClassNB-20dBm-r13</i> .....	73
4.3.5.1A.2	<i>powerClassNB-14dBm-r14</i> .....	73
4.3.5.2	<i>supportedBandCombination</i> .....	73
4.3.5.2.1	<i>supportedBandCombinationReduced-r13</i> .....	74
4.3.5.3	<i>multipleTimingAdvance</i> .....	75
4.3.5.4	<i>simultaneousRx-Tx</i> .....	75
4.3.5.5	<i>supportedCSI-Proc-r11</i> .....	75
4.3.5.6	<i>freqBandRetrieval-r11</i> .....	75
4.3.5.7	<i>dl-256QAM-r12</i> .....	75
4.3.5.8	<i>supportedNAICS-2CRS-AP-r12</i> .....	75
4.3.5.9	<i>dc-Support-r12</i> .....	75
4.3.5.9.1	<i>asynchronous-r12</i> .....	75
4.3.5.9.2	<i>supportedCellGrouping-r12</i> .....	75
4.3.5.10	<i>modifiedMPR-Behavior-r10</i> .....	76
4.3.5.11	<i>freqBandPriorityAdjustment-r12</i> .....	76
4.3.5.12	<i>commSupportedBandsPerBC-r12</i> .....	76
4.3.5.13	<i>supportedCSI-Proc-r12</i> .....	76
4.3.5.14	<i>fourLayerTM3-TM4-r10</i> .....	76
4.3.5.15	<i>fourLayerTM3-TM4-perCC-r12</i> .....	76
4.3.5.16	<i>multiNS-Pmax-r10</i> .....	76
4.3.5.16A	<i>multiNS-Pmax-r13</i> .....	76
4.3.5.17	<i>differentFallbackSupported-r13</i> .....	76
4.3.5.18	<i>maximumCCsRetrieval-r13</i> .....	76
4.3.5.19	<i>skipFallbackCombinations-r13</i> .....	76
4.3.5.20	Void .....	77
4.3.5.21	<i>reducedIntNonContComb-r13</i> .....	77
4.3.5.22	<i>additionalRx-Tx-PerformanceReq-r13</i> .....	77
4.3.5.23	<i>maxLayersMIMO-Indication-r12</i> .....	77
4.3.5.24	<i>rf-RetuningTimeDL-r14</i> .....	77
4.3.5.25	<i>rf-RetuningTimeUL-r14</i> .....	77
4.3.5.26	<i>diffFallbackCombReport-r14</i> .....	77

4.3.5.27	<i>v2x-SupportedTxBandCombListPerBC-r14, v2x-SupportedRxBandCombListPerBC-r14</i> .....	77
4.3.5.28	<i>txAntennaSwitchDL-r13</i> .....	78
4.3.5.29	<i>txAntennaSwitchUL-r13</i> .....	78
4.3.5.30	<i>supportedMIMO-CapabilityDL-r15</i> .....	78
4.3.5.31	<i>dl-1024QAM-r15</i> .....	78
4.3.5.32	<i>srs-MaxSimultaneousCCs-r14</i> .....	78
4.3.5.33	<i>powerClass-14dBm-r15</i> .....	78
4.3.5.34	<i>supportedMIMO-CapabilityDL-MRDC-r15</i> .....	79
4.3.5.35	<i>srs-FlexibleTiming-r14</i> .....	79
4.3.5.36	<i>srs-HARQ-ReferenceConfig-r14</i> .....	79
4.3.5.37	<i>fourLayerTM3-TM4-r15</i> .....	79
4.3.5.38	<i>supportedCSI-Proc-r15</i> .....	79
4.3.6	Measurement parameters .....	79
4.3.6.1	<i>interFreqNeedForGaps and interRAT-NeedForGaps</i> .....	79
4.3.6.2	<i>rsrqMeasWideband</i> .....	79
4.3.6.3	<i>timerT312-r12</i> .....	79
4.3.6.4	<i>alternativeTimeToTrigger-r12</i> .....	79
4.3.6.5	<i>benefitsFromInterruption-r11</i> .....	79
4.3.6.6	<i>incMonEUTRA-r12</i> .....	80
4.3.6.7	<i>incMonUTRA-r12</i> .....	80
4.3.6.8	<i>extendedMaxMeasId-r12</i> .....	80
4.3.6.9	<i>crs-DiscoverySignalsMeas-r12</i> .....	80
4.3.6.10	<i>csi-RS-DiscoverySignalsMeas-r12</i> .....	80
4.3.6.11	<i>extendedRSRQ-LowerRange-r12</i> .....	80
4.3.6.12	<i>rsrq-OnAllSymbols-r12</i> .....	80
4.3.6.13	<i>rs-SINR-Meas-r13</i> .....	80
4.3.6.14	<i>whiteCellList-r13</i> .....	80
4.3.6.15	<i>extendedFreqPriorities-r13</i> .....	81
4.3.6.16	<i>extendedMaxObjectId-r13</i> .....	81
4.3.6.17	<i>ul-PDCP-Delay-r13</i> .....	81
4.3.6.18	Void .....	81
4.3.6.19	<i>rss-AndChannelOccupancyReporting-r13</i> .....	81
4.3.6.20	<i>multiBandInfoReport-r13</i> .....	81
4.3.6.21	Void .....	81
4.3.6.22	Void .....	81
4.3.6.23	<i>ceMeasurements-r14</i> .....	81
4.3.6.24	<i>ncsg-r14</i> .....	81
4.3.6.25	<i>perServingCellMeasurementGap-r14</i> .....	81
4.3.6.26	<i>shortMeasurementGap-r14</i> .....	82
4.3.6.27	<i>nonUniformGap-r14</i> .....	82
4.3.6.28	<i>rlm-ReportSupport-r14</i> .....	82
4.3.6.29	Void .....	82
4.3.6.30	<i>qoe-MeasReport-r15</i> .....	82
4.3.6.31	<i>ca-IdleModeMeasurements-r15</i> .....	82
4.3.6.32	<i>ca-IdleModeValidityArea-r15</i> .....	82
4.3.6.33	<i>qoe-MTSI-MeasReport-r15</i> .....	82
4.3.6.34	<i>multipleCellsMeasExtension-r15</i> .....	82
4.3.6.35	<i>heightMeas-r15</i> .....	82
4.3.6.36	<i>measGapPatterns-r15</i> .....	82
4.3.7	Inter-RAT parameters .....	82
4.3.7.1	<i>utraFDD</i> .....	82
4.3.7.2	<i>supportedBandListUTRA-FDD</i> .....	83
4.3.7.3	<i>utraTDD128</i> .....	83
4.3.7.4	<i>supportedBandListUTRA-TDD128</i> .....	83
4.3.7.5	<i>utraTDD384</i> .....	83
4.3.7.6	<i>supportedBandListUTRA-TDD384</i> .....	83
4.3.7.7	<i>utraTDD768</i> .....	83
4.3.7.8	<i>supportedBandListUTRA-TDD768</i> .....	83
4.3.7.9	<i>geran</i> .....	83
4.3.7.10	<i>supportedBandListGERAN</i> .....	83
4.3.7.11	<i>interRAT-PS-HO-ToGERAN</i> .....	83
4.3.7.12	<i>cdma2000-HRPD</i> .....	83

4.3.7.13	<i>supportedBandListHRPD</i> .....	84
4.3.7.14	<i>tx-ConfigHRPD</i> .....	84
4.3.7.15	<i>rx-ConfigHRPD</i> .....	84
4.3.7.16	<i>cdma2000-1xRTT</i> .....	84
4.3.7.17	<i>supportedBandList1XRTT</i> .....	84
4.3.7.18	<i>tx-Config1XRTT</i> .....	84
4.3.7.19	<i>rx-Config1XRTT</i> .....	84
4.3.7.20	<i>e-CSFB-1XRTT</i> .....	84
4.3.7.21	<i>e-CSFB-ConcPS-Mob1XRTT</i> .....	84
4.3.7.22	<i>e-RedirectionUTRA</i> .....	84
4.3.7.23	<i>e-RedirectionGERAN</i> .....	84
4.3.7.24	<i>dtm</i> .....	85
4.3.7.25	<i>e-CSFB-dual-1XRTT</i> .....	85
4.3.7.26	<i>e-RedirectionUTRA-TDD</i> .....	85
4.3.7.27	<i>cdma2000-NW-Sharing-r11</i> .....	85
4.3.7.28	<i>mfbf-UTRA</i> .....	85
4.3.7.29	<i>supportedBandListWLAN</i> .....	85
4.3.8	General parameters.....	85
4.3.8.1	<i>accessStratumRelease</i> .....	85
4.3.8.1A	<i>accessStratumRelease-r13</i> .....	85
4.3.8.2	<i>deviceType</i> .....	85
4.3.8.3	Void.....	85
4.3.8.4	Void.....	85
4.3.8.5	<i>multipleDRB-r13</i> .....	85
4.3.8.6	Void.....	86
4.3.8.7	<i>earlyData-UP-r15</i> .....	86
4.3.8.8	void.....	86
4.3.8.9	<i>extendedNumberOfDRBs-r15</i> .....	86
4.3.8.10	<i>reducedCP-Latency-r15</i> .....	86
4.3.9	Void.....	86
4.3.10	CSG Proximity Indication parameters.....	86
4.3.10.1	<i>intraFreqProximityIndication</i> .....	86
4.3.10.2	<i>interFreqProximityIndication</i> .....	86
4.3.10.3	<i>utran-ProximityIndication</i> .....	86
4.3.11	Neighbour cell SI acquisition parameters.....	86
4.3.11.1	<i>intraFreqSI-AcquisitionForHO</i> .....	86
4.3.11.2	<i>interFreqSI-AcquisitionForHO</i> .....	86
4.3.11.3	<i>utran-SI-AcquisitionForHO</i> .....	87
4.3.11.4	<i>reportCGI-NR-EN-DC-r15</i> .....	87
4.3.11.5	<i>reportCGI-NR-NoEN-DC-r15</i> .....	87
4.3.11.6	<i>eutra-CGI-Reporting-ENDC</i> .....	87
4.3.11.7	<i>utra-GERAN-CGI-Reporting-ENDC</i> .....	87
4.3.11.8	Void.....	87
4.3.11.9	Void.....	87
4.3.11.10	Void.....	87
4.3.11.11	Void.....	87
4.3.11.12	Void.....	87
4.3.11.13	<i>eutra-CGI-Reporting-NEDC-r15</i> .....	87
4.3.12	SON parameters.....	87
4.3.12.1	<i>rach-Report</i> .....	87
4.3.13	UE-based network performance measurement parameters.....	88
4.3.13.1	<i>loggedMeasurementsIdle</i> .....	88
4.3.13.2	<i>standaloneGNSS-Location</i> .....	88
4.3.13.3	Void.....	88
4.3.13.4	<i>loggedMBSFNMeasurements-r12</i> .....	88
4.3.13.5	<i>locationReport-r14</i> .....	88
4.3.13.6	<i>loggedMeasBT-r15</i> .....	88
4.3.13.7	<i>loggedMeasWLAN-r15</i> .....	88
4.3.13.8	<i>immMeasBT-r15</i> .....	88
4.3.13.9	<i>immMeasWLAN-r15</i> .....	88
4.3.14	IMS Voice parameters.....	88
4.3.14.1	<i>voiceOver-PS-HS-UTRA-FDD</i> .....	88

4.3.14.2	<i>voiceOver-PS-HS-UTRA-TDD128</i> .....	88
4.3.14.3	<i>srvcc-FromUTRA-FDD-ToGERAN</i> .....	88
4.3.14.4	<i>srvcc-FromUTRA-FDD-ToUTRA-FDD</i> .....	89
4.3.14.5	<i>srvcc-FromUTRA-TDD128-ToGERAN</i> .....	89
4.3.14.6	<i>srvcc-FromUTRA-TDD128-ToUTRA-TDD128</i> .....	89
4.3.15	Other parameters.....	89
4.3.15.1	Void.....	89
4.3.15.2	<i>inDeviceCoexInd-r11</i> .....	89
4.3.15.3	<i>powerPrefInd-r11</i> .....	89
4.3.15.4	<i>ue-Rx-TxTimeDiffMeasurements-r11</i> .....	89
4.3.15.5	Void.....	89
4.3.15.6	Void.....	89
4.3.15.7	Void.....	89
4.3.15.8	<i>inDeviceCoexInd-UL-CA-r11</i> .....	89
4.3.15.9	<i>bwPrefInd-r14</i> .....	89
4.3.15.10	<i>inDeviceCoexInd-HardwareSharingInd-r13</i> .....	89
4.3.15.11	<i>overheatingInd-r14</i> .....	90
4.3.15.12	<i>assistInfoBitForLC-r15</i> .....	90
4.3.15.13	<i>timeReferenceProvision-r15</i> .....	90
4.3.15.14	<i>flightPathPlan-r15</i> .....	90
4.3.15.15	<i>inDeviceCoexInd-ENDC-r15</i> .....	90
4.3.15.16	<i>nonCSG-SI-Reporting-r14</i> .....	90
4.3.16	Positioning parameters.....	90
4.3.16.1	<i>otdoa-UE-assisted</i> .....	90
4.3.16.2	<i>interFreqRSTDmeasurement</i> .....	90
4.3.17	MBMS parameters.....	90
4.3.17.1	<i>mbms-SCell-r11</i> .....	90
4.3.17.2	<i>mbms-NonServingCell-r11</i> .....	90
4.3.17.3	<i>mbms-AsyncDC-r12</i> .....	91
4.3.17.4	<i>fembmsMixedCell-r14</i> .....	91
4.3.17.5	<i>fembmsDedicatedCell-r14</i> .....	91
4.3.17.6	<i>subcarrierSpacingMBMS-kHz7dot25-r14, subcarrierSpacingMBMS-kHz7dot5-r14</i> .....	91
4.3.17.7	<i>mbms-MaxBW-r14</i> .....	91
4.3.17.8	<i>mbms-ScalingFactor7dot25-r14, mbms-ScalingFactor7dot5-r14</i> .....	91
4.3.18	RAN-assisted WLAN interworking parameters .....	91
4.3.18.1	<i>wlan-IW-RAN-Rules-r12</i> .....	91
4.3.18.2	<i>wlan-IW-ANDSF-Policies-r12</i> .....	91
4.3.18.3	<i>rclwi-r13</i> .....	92
4.3.19	MAC parameters.....	92
4.3.19.1	<i>longDRX-Command-r12</i> .....	92
4.3.19.2	<i>logicalChannelSR-ProhibitTimer-r12</i> .....	92
4.3.19.3	<i>extendedMAC-LengthField-r13</i> .....	92
4.3.19.4	<i>extendedLongDRX-r13</i> .....	92
4.3.19.5	<i>shortSPS-IntervalFDD-r14</i> .....	92
4.3.19.6	<i>shortSPS-IntervalTDD-r14</i> .....	92
4.3.19.7	<i>skipUplinkDynamic-r14</i> .....	92
4.3.19.8	<i>skipUplinkSPS-r14</i> .....	92
4.3.19.9	<i>dataInactMon-r14</i> .....	92
4.3.19.10	<i>rai-Support-r14</i> .....	92
4.3.19.11	<i>multipleUplinkSPS-r14</i> .....	93
4.3.19.12	<i>min-Proc-TimelineSubslot-r15</i> .....	93
4.3.19.13	<i>skipSubframeProcessing-r15</i> .....	93
4.3.19.14	<i>earlyContentionResolution-r14</i> .....	93
4.3.19.15	<i>sr-SPS-BSR-r15</i> .....	93
4.3.19.16	<i>dormantSCellState-r15</i> .....	93
4.3.19.17	<i>directSCellActivation-r15</i> .....	93
4.3.19.18	<i>directSCellHibernation-r15</i> .....	93
4.3.19.19	<i>sps-ServingCell-r15</i> .....	93
4.3.19.20	<i>extendedLCID-Duplication-r15</i> .....	94
4.3.19.21	<i>eLCID-Support-r15</i> .....	94
4.3.20	Dual Connectivity parameters.....	94
4.3.20.1	<i>drb-TypeSplit-r12</i> .....	94

4.3.20.2	<i>drb-TypeSCG-r12</i> .....	94
4.3.20.3	<i>pdcp-TransferSplitUL-r13</i> .....	94
4.3.20.4	<i>ue-SSTD-Meas-r13</i> .....	94
4.3.21	Sidelink parameters.....	94
4.3.21.1	<i>commSupportedBands-r12</i> .....	94
4.3.21.2	<i>commSimultaneousTx-r12</i> .....	94
4.3.21.3	<i>discSupportedBands-r12</i> .....	94
4.3.21.4	<i>discScheduledResourceAlloc-r12</i> .....	94
4.3.21.5	<i>disc-UE-SelectedResourceAlloc-r12</i> .....	95
4.3.21.6	<i>disc-SLSS-r12</i> .....	95
4.3.21.7	<i>discSupportedProc-r12</i> .....	95
4.3.21.8	<i>commMultipleTx-r13</i> .....	95
4.3.21.9	<i>discInterFreqTx-r13</i> .....	95
4.3.21.10	<i>discPeriodicSLSS-r13</i> .....	95
4.3.21.11	<i>discSysInfoReporting-r13</i> .....	95
4.3.21.12	<i>zoneBasedPoolSelection-r14</i> .....	95
4.3.21.13	<i>v2x-HighReception-r14</i> .....	95
4.3.21.14	<i>v2x-eNB-Scheduled-r14</i> .....	95
4.3.21.15	<i>ue-AutonomousWithFullSensing-r14</i> .....	96
4.3.21.16	<i>ue-AutonomousWithPartialSensing-r14</i> .....	96
4.3.21.17	<i>slss-TxRx-r14</i> .....	96
4.3.21.18	<i>sl-CongestionControl-r14</i> .....	96
4.3.21.19	<i>v2x-TxWithShortResvInterval-r14</i> .....	96
4.3.21.20	<i>v2x-numberTxRxTiming-r14</i> .....	96
4.3.21.21	<i>v2x-nonAdjacentPSCCH-PSSCH-r14</i> .....	96
4.3.21.22	<i>v2x-HighPower-r14</i> .....	96
4.3.21.23	<i>v2x-SupportedBandCombinationList-r14</i> .....	96
4.3.21.24	<i>slss-SupportedTxFreq-r15</i> .....	96
4.3.21.25	<i>sl-64QAM-Tx-r15</i> .....	96
4.3.21.26	<i>sl-TxDiversity-r15</i> .....	97
4.3.21.27	<i>v2x-EnhancedHighReception-r15</i> .....	97
4.3.21.28	<i>sl-64QAM-Rx-r15</i> .....	97
4.3.21.29	<i>sl-RateMatchingTBSScaling-r15</i> .....	97
4.3.21.30	<i>sl-LowT2min-r15</i> .....	97
4.3.21.31	<i>v2x-SensingReportingMode3-r15</i> .....	97
4.3.22	SC-PTM parameters.....	97
4.3.22.1	<i>scptm-ParallelReception-r13</i> .....	97
4.3.22.2	Void.....	97
4.3.22.3	<i>scptm-SCell-r13</i> .....	97
4.3.22.4	<i>scptm-NonServingCell-r13</i> .....	97
4.3.22.5	<i>scptm-AsyncDC-r13</i> .....	98
4.3.23	LAA parameters.....	98
4.3.23.1	<i>downlinkLAA-r13</i> .....	98
4.3.23.2	<i>crossCarrierSchedulingLAA-DL-r13</i> .....	98
4.3.23.3	<i>csi-RS-DRS-RRM-MeasurementsLAA-r13</i> .....	98
4.3.23.4	<i>endingDwPTS-r13</i> .....	98
4.3.23.5	<i>secondSlotStartingPosition-r13</i> .....	98
4.3.23.6	<i>tm9-LAA-r13</i> .....	98
4.3.23.7	<i>tm10-LAA-r13</i> .....	98
4.3.23.8	<i>uplinkLAA-r14</i> .....	98
4.3.23.9	<i>crossCarrierSchedulingLAA-UL-r14</i> .....	99
4.3.23.10	<i>twoStepSchedulingTimingInfo-r14</i> .....	99
4.3.23.11	<i>uss-BlindDecodingAdjustment-r14</i> .....	99
4.3.23.12	<i>uss-BlindDecodingReduction-r14</i> .....	99
4.3.23.13	<i>outOfSequenceGrantHandling-r14</i> .....	99
4.3.23.14	<i>aul-r15</i> .....	99
4.3.23.15	<i>laa-PUSCH-Mode1-r15</i> .....	99
4.3.23.16	<i>laa-PUSCH-Mode2-r15</i> .....	99
4.3.23.17	<i>laa-PUSCH-Mode3-r15</i> .....	99
4.3.24	LWIP parameters.....	99
4.3.24.1	<i>lwip-r13</i> .....	99
4.3.24.2	<i>lwip-Aggregation-UL-r14</i> .....	100

4.3.24.3	<i>lwip-Aggregation-DL-r14</i> .....	100
4.3.25	LWA parameters.....	100
4.3.25.1	<i>lwa-r13</i> .....	100
4.3.25.2	<i>lwa-SplitBearer-r13</i> .....	100
4.3.25.3	<i>lwa-BufferSize-r13</i> .....	100
4.3.25.4	<i>wlan-MAC-Address-r13</i> .....	100
4.3.25.5	<i>lwa-HO-WithoutWT-Change-r14</i> .....	100
4.3.25.6	<i>lwa-UL-r14</i> .....	100
4.3.25.7	Void.....	100
4.3.25.8	<i>wlan-SupportedDataRate-r14</i> .....	100
4.3.25.9	<i>lwa-RLC-UM-r14</i> .....	100
4.3.26	Void .....	101
4.3.26.1	Void.....	101
4.3.27	Inter-RAT parameters WLAN .....	101
4.3.27.1	<i>supportedBandListWLAN-r13</i> .....	101
4.3.28	EBF FD-MIMO parameters .....	101
4.3.28.1	<i>beamformed-r13</i> .....	101
4.3.28.2	<i>channelMeasRestriction-r13</i> .....	101
4.3.28.3	<i>csi-RS-EnhancementsTDD-r13</i> .....	101
4.3.28.4	<i>dmrs-Enhancements-r13</i> .....	101
4.3.28.5	<i>interferenceMeasRestriction-r13</i> .....	101
4.3.28.6	<i>nonPrecoded-r13</i> .....	101
4.3.28.7	<i>srs-Enhancements-r13</i> .....	102
4.3.28.8	<i>srs-EnhancementsTDD-r13</i> .....	102
4.3.28.9	<i>csi-ReportingAdvanced-r14, csi-ReportingAdvancedMaxPorts-r14</i> .....	102
4.3.28.10	<i>mimo-CBSR-AdvancedCSI-r15</i> .....	102
4.3.28.11	<i>csi-ReportingNP-r14</i> .....	102
4.3.28.12	<i>relWeightTwoLayers-r13, relWeightFourLayers-r13, relWeightEightLayers-r13</i> .....	102
4.3.28.13	<i>totalWeightedLayers-r13</i> .....	102
4.3.28.14	<i>zp-CSI-RS-AperiodicInfo-r14</i> .....	103
4.3.28.15	<i>ul-dmrs-Enhancements-r14</i> .....	103
4.3.28.16	<i>densityReductionNP-r14, densityReductionBF-r14</i> .....	103
4.3.28.17	<i>hybridCSI-r14</i> .....	103
4.3.28.18	<i>semiOL-r14</i> .....	103
4.3.28.19	<i>nzp-CSI-RS-AperiodicInfo-r14</i> .....	103
4.3.28.20	<i>nzp-CSI-RS-PeriodicInfo-r14</i> .....	103
4.3.29	CE parameters.....	104
4.3.29.1	<i>ce-ModeA-r13</i> .....	104
4.3.29.2	<i>ce-ModeB-r13</i> .....	104
4.3.29.3	<i>intraFreqA3-CE-ModeA-r13</i> .....	104
4.3.29.4	<i>intraFreqA3-CE-ModeB-r13</i> .....	104
4.3.29.5	<i>intraFreqHO-CE-ModeA-r13</i> .....	104
4.3.29.6	<i>intraFreqHO-CE-ModeB-r13</i> .....	104
4.3.29.7	<i>ue-CE-NeedULGaps-r13</i> .....	104
4.3.29.8	<i>unicastFrequencyHopping-r13</i> .....	104
4.3.29.9	<i>ce-SwitchWithoutHO-r14</i> .....	104
4.3.29.10	<i>tm9-CE-ModeA-r13</i> .....	105
4.3.29.11	<i>tm9-CE-ModeB-r13</i> .....	105
4.3.29.12	<i>tm6-CE-ModeA-r13</i> .....	105
4.3.30	Mobility enhancement parameters .....	105
4.3.30.1	<i>makeBeforeBreak-r14</i> .....	105
4.3.30.2	<i>rach-Less-r14</i> .....	105
4.3.31	Void .....	105
4.3.31.1	Void.....	105
4.3.31.2	Void.....	105
4.3.32	MMTEL parameters .....	105
4.3.32.1	<i>delayBudgetReporting-r14</i> .....	105
4.3.32.2	<i>pusch-Enhancements-r14</i> .....	105
4.3.32.3	<i>recommendedBitRate-r14</i> .....	105
4.3.33	High speed enhancement parameters .....	106
4.3.33.1	<i>measurementEnhancements-r14</i> .....	106
4.3.33.2	<i>demodulationEnhancements-r14</i> .....	106

4.3.33.3	<i>prach-Enhancements-r14</i> .....	106
4.3.34	Inter-RAT Parameters NR .....	106
4.3.34.1	<i>en-DC-r15</i> .....	106
4.3.34.2	<i>supportedBandListEN-DC-r15</i> .....	106
4.3.34.3	<i>supportedBandListNR-SA-r15</i> .....	106
4.3.34.4	<i>eutra-5GC-HO-ToNR-FDD-FR1-r15</i> .....	106
4.3.34.5	<i>eutra-5GC-HO-ToNR-TDD-FR1-r15</i> .....	106
4.3.34.6	<i>eutra-5GC-HO-ToNR-FDD-FR2-r15</i> .....	106
4.3.34.7	<i>eutra-5GC-HO-ToNR-TDD-FR2-r15</i> .....	106
4.3.34.8	<i>eutra-EPC-HO-ToNR-FDD-FR1-r15</i> .....	107
4.3.34.9	<i>eutra-EPC-HO-ToNR-TDD-FR1-r15</i> .....	107
4.3.34.10	<i>eutra-EPC-HO-ToNR-FDD-FR2-r15</i> .....	107
4.3.34.11	<i>eutra-EPC-HO-ToNR-TDD-FR2-r15</i> .....	107
4.3.34.12	<i>sa-NR-r15</i> .....	107
4.3.34.13	<i>ims-VoiceOverNR-FR1-r15</i> .....	107
4.3.34.14	<i>ims-VoiceOverNR-FR2-r15</i> .....	107
4.3.34.15	<i>eventB2-r15</i> .....	107
4.3.34.16	<i>ss-SINR-Meas-NR-FR1-r15</i> .....	107
4.3.34.17	<i>ss-SINR-Meas-NR-FR2-r15</i> .....	107
4.3.35	FeCoMP Parameters .....	107
4.3.35.1	<i>qcl-CRI-BasedCSI-Reporting-r15</i> .....	107
4.3.35.2	<i>qcl-TypeC-Operation-r15</i> .....	108
4.3.36	E-UTRA/5GC Parameters .....	108
4.3.36.1	<i>eutra-5GC-r15</i> .....	108
4.3.36.2	<i>eutra-EPC-HO-EUTRA-5GC-r15</i> .....	108
4.3.36.3	Void.....	108
4.3.36.4	<i>ho-EUTRA-5GC-FDD-TDD-r15</i> .....	108
4.3.36.5	<i>ho-InterfreqEUTRA-5GC-r15</i> .....	108
4.3.36.6	<i>IMS-VoiceOverMCG-BearerEUTRA-5GC-r15</i> .....	108
4.3.36.7	<i>inactiveState-r15</i> .....	108
4.3.36.8	<i>reflectiveQoS-r15</i> .....	108
5	Void.....	108
6	Optional features without UE radio access capability parameters .....	108
6.1	CSG features .....	109
6.2	PWS features .....	109
6.2.1	ETWS .....	109
6.2.2	CMAS .....	109
6.2.3	KPAS .....	109
6.2.4	EU-Alert .....	109
6.3	MBMS features .....	109
6.3.1	MBMS Service Continuity .....	109
6.3.2	MBMS reception with 256QAM .....	109
6.4	Void.....	110
6.5	Positioning features .....	110
6.5.0	Void .....	110
6.5.1	Void .....	110
6.6	UE receiver features .....	110
6.6.1	MMSE with IRC receiver .....	110
6.6.2	MMSE with IRC receiver for PDSCH transmission mode 9 .....	110
6.6.3	Single-user MIMO interference mitigation advanced receiver for UEs with 2 receiver antenna ports ....	110
6.6.4	Single-user MIMO interference mitigation advanced receiver for UEs with 4 receiver antenna ports ....	110
6.6.5	MMSE-IRC DL Control Channel interference mitigation receiver for UEs with 4 receiver antenna ports .....	110
6.7	RRC Connection .....	110
6.7.1	RRC Connection Reject with deprioritisation.....	110
6.7.2	RRC Connection Establishment Failure Temporary Qoffset.....	110
6.7.3	<i>mo-VoiceCall</i> establishment cause for mobile originating MMTEL video .....	111
6.7.4	<i>mo-VoiceCall</i> establishment cause for mobile originating MMTEL voice.....	111
6.7.5	RRC Connection Re-establishment for the Control Plane CIoT EPS Optimization.....	111
6.8	Other features .....	111

6.8.1	System Information Block Type 16.....	111
6.8.2	QCI1 indication in Radio Link Failure Report .....	111
6.8.3	Enhanced random access power control .....	111
6.8.4	EDT for Control Plane Clot EPS Optimization.....	111
6.8.5	Void .....	111
6.8.6	Enhanced PHR.....	111
6.8.7	void .....	111
6.8.8	Resynchronization Signals.....	111
6.8.9	Measurement gaps for higher UE velocity .....	112
6.8.10	Void .....	112
6.8.11	Void .....	112
6.8.12	Void .....	112
6.8.13	Reduced MIB/SIB1-BR acquisition time .....	112
6.9	Void.....	112
6.10	SON features .....	112
6.10.1	Radio Link Failure Report for inter-RAT MRO.....	112
6.11	Mobility state features .....	112
6.11.1	Mobility history information storage.....	112
6.12	Void.....	112
6.13	Sidelink features .....	112
6.13.1	Sidelink Relay UE operation .....	112
6.13.2	Sidelink Remote UE operation .....	112
6.13.3	Sidelink discovery gap.....	112
6.13.4	Enhanced sidelink resource selection .....	113
6.14	DRX features.....	113
6.14.1	Extended DRX in RRC_IDLE.....	113
6.15	Load balancing features.....	113
6.15.1	Redistribution in RRC_IDLE .....	113
6.16	SC-PTM features.....	113
6.16.1	SC-PTM in Idle mode.....	113
6.17	Idle mode measurements.....	113
6.17.1	Relaxed monitoring.....	113
6.17.2	DL channel quality reporting.....	113
6.17.3	Serving cell idle mode measurements reporting.....	113
6.17.4	NSSS-Based RRM measurements .....	113
6.17.5	NPBCH-Based RRM measurements .....	114
7	Conditionally Mandatory features.....	114
7.1	Access control features.....	114
7.1.1	SSAC .....	114
7.1.2	CSFB Access Barring Control .....	114
7.1.3	Extended Access Barring.....	114
7.1.4	ACDC .....	114
7.1.5	EAB per RSRP .....	114
7.2	Emergency call features .....	114
7.2.1	IMS emergency call.....	114
7.3	MAC features .....	114
7.3.1	SR mask.....	114
7.3.2	Power Management Indicator in PHR .....	114
7.4	Inter-RAT Mobility features.....	115
7.4.1	High Priority CSFB redirection .....	115
7.4.2	GERAN A/Gb mode to E-UTRAN Inter RAT handover (PS Handover).....	115
7.4.3	SRVCC to E-UTRAN from GERAN .....	115
7.5	Delay Tolerant Access Features .....	115
7.5.1	extendedWaitTime.....	115
7.6	RRC Connection .....	115
7.6.1	Void .....	115
7.7	Physical layer features.....	115
7.7.1	Different UL/ DL configuration for TDD inter-band carrier aggregation .....	115
7.7.2	Full duplex for TDD and FDD carrier aggregation .....	115
7.7.3	Simultaneous transmission of PUCCH and PUSCH across PUCCH groups.....	115
7.7.4	Simultaneous transmission of PUCCH in licensed spectrum and PUSCH in LAA SCells .....	116